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THESIS

ANALYZING THE DESIGN OF TERRORIST ORGANIZATIONS: USING THE ORGANIZATIONAL CONSULTANT

by

Harrison T. Lowe

September 2004

Thesis Advisor: Carl Jones
Associate Advisor: Ray Buettner

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13. ABSTRACT *(maximum 200 words)*

With the events of September 11, 2001, terrorist organizations have moved to the forefront of threats to U.S. national security. These organizations utilize unconventional forms of warfare and new organizational structures to survive. However, they must still perform all the functions of traditional organizations: fundraising, internal and external communications, command and coordination, creation of a product, etc. Using an expert system to evaluate the structure of a terrorist organization could increase the amount of knowledge and understanding of it and provide critical insights into the organization's strengths and vulnerabilities. This research will focus on the utility of the expert system Organizational Consultant to evaluate the Hamas terrorist organization as a case study to determine its utility in discerning the organization's structure and suitability to its environment.

In order to combat terrorism effectively, the U.S. must gather as much knowledge about various terrorist organizations as possible. Using fit criteria and certainty factors to analyze an organization by means of the expert system Organizational Consultant, the Department of Defense could potentially gain a powerful understanding of the organization's strengths and weaknesses and utilize that knowledge to bring about the terrorist organization's demise efficiently and effectively.

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ANALYZING THE DESIGN OF TERRORIST ORGANIZATIONS: USING THE ORGANIZATIONAL CONSULTANT

Harrison T. Lowe
Lieutenant Junior Grade, United States Naval Reserve
B.S., Florida State University, 2001

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**NAVAL POSTGRADUATE SCHOOL
September 2004**

Author: Harrison T. Lowe

Approved by: Carl Jones
                 Thesis Advisor

                 Ray Buettner
                 Associate Advisor

                 Dan Boger
                 Chairman, Department of Information Sciences

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I.   INTRODUCTION

A.   BACKGROUND

With the events of September 11, 2001, terrorist organizations have moved to the forefront of threats to U.S. national security. These organizations represent a great variety of aims, beliefs, and cultures. However, it is generally assumed that all utilize networked, loosely coupled organizational forms and unconventional warfare to further their causes, weaken their enemies, and gain supporters. Additionally, many terrorist organizations are turning to the Internet to gain members and financial support as well as provide internal communications (Zanini 247-257).

The U.S. Government has little recent practical experience in dealing with organizations that exhibit loosely coupled characteristics with relatively little hierarchy. The structures, mindsets, and means of terrorist groups are very different from the structure of Soviet style states and militaries. Because of their inability to operate openly for fear of annihilation, terrorist groups' cells and functions usually operate very independent of each other. Terrorist groups, being loosely coupled, typically do not depend on hierarchical leadership decisions for actions nearly as much as the hierarchical Soviet system did.

While the structures that terrorist organizations use are different from that with which the U.S. Government is accustomed to dealing, they still must perform the functions of traditional organizations. Loosely coupled, networked organizations such as terrorist groups still must conduct fundraising, internal and external communications, command and coordination, and the creation of a product or service. The structure of an organization provides insights into how it performs these functions because it determines the information flows within the organization. Thus, it is critical that America know what the strengths and weaknesses of these terrorist organizations are, so it can exploit them to weaken and eliminate them.

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B.   THEORY PRESENTATION

According to Burton and Obel, "Organizational theory is a positive science that states our understanding about how the world operates and contrasts that understanding with a view of how the world could possibly operate" (xviii). To apply organizational theory to the improvement of organizations' structures, organizational design has been developed as a new field of study. "Organizational design is a normative science with the goal of prescribing how an organization should be structured in order to function effectively and efficiently" (Burton and Obel xviii). Several expert systems have been developed to evaluate an organization and provide suggestions for improvement. These programs range from decision support systems which give evaluations regarding specific decisions to systems which give an overview of the current structure of an organization within its environment and give suggestions as to what conditions would improve the organization's performance without stating how to practically attain those conditions. Systems in the latter group expose weaknesses in the organization in order to facilitate improvement. Therefore, using an expert system to evaluate the structure of a terrorist organization could increase the amount of knowledge and understanding of it and give a clear picture of the organization's strengths and vulnerabilities.

In this thesis the author will analyze the usefulness of using one such expert system, the Organizational Consultant, in understanding terrorist organizations. Richard M. Burton and Børge Obel developed Organizational Consultant to analyze businesses' organizational structures to determine if they were optimized for the fields in which they competed. Specifically, in this thesis the author evaluates Organizational Consultant's utility in analyzing the terrorist group Hamas.

The scope of this research and analysis will cover the following two questions. First, how can the Organizational Consultant expert system be used to analyze terrorist organizations? Second, is the data obtainable from open literature on Hamas sufficient for using Organizational Consultant to get acceptable results?

II. APPLICATION OF ORGANIZATIONAL CONSULTANT TO HAMAS

A. BACKGROUND

The Organizational Consultant is an expert system in the form of a computer program designed to use organizational theory for the purposes of organizational design. In order to accomplish this, Organizational Consultant utilizes a knowledge base collected in a wide survey of organizational theory literature, the hypotheses of which have been weighted according to the amount of evidence to support them. The knowledge base is comprised of first order predicate calculus propositions. The program then asks the user a series of questions about an organization to define that organization's parameters. It accounts for uncertain or unverifiable answers by using a numbering system from -100 (completely certain it is not that answer) to 100 (completely certain it is that answer) to further weight the answers. Organizational Consultant then processes the weighted answers using the knowledge base and an inference engine. It returns a description of the organization's size, climate, management style, strategy, and organizational characteristics. It also returns a recommended organizational structure and in comparing the current with recommended structure identifies situation and organizational misfits.

In order to properly evaluate the utility of Organizational Consultant, the terrorist organization to be evaluated needed certain characteristics. First, it needed to be a mature movement. A brand new movement will not have developed its policies, methods, and structures enough to be accurately examined by Organizational Consultant. On the other hand, a dying movement would have already been defeated in one way or another, so to study it would be rather useless from a national security perspective. Thus, a mature movement, still going strong from a national security perspective would provide the best information to use in Organizational Consultant. Second, the organization would need to have a well known and documented structure, since a consultant firm could not just walk into the organization and collect data.

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Hamas is an ideal terrorist organization for evaluation by Organizational Consultant. It is a mature movement with its policies, politics, ideology, tactics, and structure all very well developed and defined. Moreover, its structure has been documented very well in <u>The Palestinian Hamas: Vision, Violence, and Coexistence</u> by Shaul Mishal and Avraham Sela. Thus, Hamas provides the information and the setting necessary to conduct a proper examination of Organizational Consultant's ability to evaluate accurately terrorist organizations in general.

In this chapter, a description of the process by which Organizational Consultant was applied to Hamas is given. It is structured to provide the reader with an understanding of how the author obtained answers and also what kind of information would be useful to answering each of the questions precisely in an ideal world. The questions are divided by topic; additionally, a description of the variable sought by each question is given to see what Organizational Consultant is attempting to understand along with suggestions on what kind of data should be sought, and an answer is given along with a certainty factor and reasoning for it. The answers given in this study are by no means definitive because of the ambiguity or simple lack of data, and several cases using different responses for questions whose answers are ambiguous should be tried in the future for sensitivity analysis. Sensitivity analysis can be used to identify factors that have a great effect on the outcome of Organizational Consultant. These factors can then be used to determine key intelligence needed to make the program effective. The suggestions for data are the best way to obtain the precise information; however, only estimations are made here from open source materials.

B.   CURRENT CONFIGURATION

1.   What is the organization's current organizational configuration?

a.   Measurement

Organizational configuration "specifies the general principle for dividing work, breaking tasks into subtasks and coordinating activities" (Burton and Obel 45). Organizational Consultant has seven different configurations from which to choose: simple, functional, divisional, matrix, machine bureaucracy, professional bureaucracy, and ad hoc. In terms of gathering the data, the organizational "configuration is represented most frequently as an organizational chart" (Burton and Obel 45).

b.   Answer: Divisional, Certainty Factor 100

> The divisional configuration is characterized by organizational subunits based on a grouping of products, markets, or customers. The units are relatively autonomous…It is the aim in the design of the division to minimize the interdependency of the units. (Burton and Obel 53)

According to Mishal and Sela, Hamas is a loosely coupled, divisional organization. "Horizontally, various tasks are grouped according to the functions performed for the organization" (Mishal and Sela 155). These functions are the various services presented to the Palestinian public: educational, medical, dental, union, political, and violence against Israel (Hamas believes this is a service to the Palestinian people in that they are fighting for their liberation). In Organizational Consultant, services are equated to products (Burton and Obel 53). The Advisory Council and the Political Bureau govern the rest of the organization from outside the occupied territories (Mishal and Sela 161).

> The Advisory Council is thought to have twelve members, the majority non-Palestinians. It serves as the supreme religious authority, its principal role being to provide normative backing and moral justification for Hamas's political conduct and major decisions. Officially, the council's decisions are based on a majority vote. In practice, however, the council does not operate as a collective body; rather, issues under discussion are referred to a

council member able to offer expert advice…(T)he Political Bureau functions as an executive body that has obtained more control over and greater obedience and compliance from Hamas's rank and file. The bureau's ten members are responsible for directing Hamas policies and adjusting them to conform with the shifting realities. (Mishal and Sela 161-162)

The governing bodies coordinate with Hamas inside the West Bank and Gaza Strip using the Administrative Office and the West Bank and Gaza Office.

The former office is responsible for coordinating the *da'wa* (social services with the aim of spreading Islamic values) activities and the Security and Events Units…The West Bank and Gaza Office acts as a liaison between the headquarters of the two regions. (Mishal and Sela 162)

Below the headquarters level,

(i)n addition to labor's functional division, there (is) also a vertical geographical division. The Gaza Strip (is) divided into seven districts and the West Bank into five. Each district (is) subdivided into subdistricts, which (are) further divided into local units of villages or refugee camps. Each unit (is) headed by a supervisor who (is) responsible for two or three cells. (Mishal and Sela 158)

Additionally, "Hamas's units are carefully compartmentalized" (Mishal and Sela 158). The military arm is separate from the civilian arm and is very compartmentalized and networked. Thus, Hamas has a divisional configuration in which it is both divided by service and geography.

C.   CURRENT COMPLEXITY

Before any discussion of organizational complexity can begin, the difference between an official member of Hamas (known as an employee in the context of Organizational Consultant) and a supporter of Hamas must first be defined. A member of Hamas is defined as one who works directly for the organization. This excludes people who give financial support and protesters, unless they provide some other service to the organization as well. A member is not necessarily compensated financially for his or her work. They would ideally be found on rosters of some sort.

Organizational complexity is defined as "the degree of horizontal, vertical, and spatial differentiation" (Burton and Obel 68).

1. How many different job titles are there?

a. Measurement

Organizational Consultant needs the number of job titles in order to determine the amount of horizontal differentiation in Hamas. "Horizontal differentiation is greater when there are several small tasks and specialization by experience, education, and training" (Burton and Obel 68). However, Organizational Consultant is only concerned with formal horizontal differentiation. Take this quote for example: "The simple organization shown earlier in Figure 2.1 has no well-specified horizontal differentiation: as Peter, the top manager, assigns work to George, Jane, and Jens at will" (Burton and Obel 69). In other words, horizontal differentiation as defined by Organizational Consultant is not just the division of labor; it is the formal and well-specified division of labor. Therefore, only formal job titles will be counted in the analysis of Hamas.

A list or lists of job titles would be required to determine the exact number of job titles. Additionally, since Organizational Consultant does not require the actual number of titles to answer its question, the configuration of the organization and the level of professionalization of workers are important factors to consider (Burton and Obel 70). The configuration is important because in Organizational Consultant the organization must be compared with other organizations in that same configuration to determine the amount of horizontal differentiation relative to the level of differentiation in other organizations of the same configuration. The professionalization of workers is important because that factor can limit or expand specialization. For example, a group of doctors may all be listed as doctors, but it is very likely that they will be specialized in different areas of medicine while they are also all able to practice general medicine.

b. Answer: Large Number, Certainty Factor 85

The author estimates Hamas to be a large organization as compared to other functionally configured organizations. It is smaller than

worldwide companies like Federal Express Corporation, but it is also almost certainly much larger than the St. Petersburg Times (Burton and Obel 50). Hamas has a large number of very different functions, including political, educational, vocational, medical, religious, and military. Some of these functions (such as the medical functions, which are medical infirmaries, dental facilities, and a blood bank (Mishal and Sela 157)) contain a large degree of horizontal differentiation. Others (such as the military arm of Hamas) have less horizontal differentiation. In all likelihood, this has much to do with the fact that the military arm is covert and underground and therefore has few (if any) formal job titles.

2. **What proportion of employees hold advanced degrees or have many years of specialized training?**

   a. *Measurement*

   Organizational Consultant uses this variable to determine the amount of professionalization in the organization. The degree of professionalization affects the categorization of the size of the organization. In the context of Hamas, special consideration must be given to the religious context of the organization. While members of Hamas do have much cultural training in Islam, only in the cases of teachers and religious leaders should advanced training in Islam be considered as specialized training for the tasks they perform in Hamas.

   The best data would come from descriptions of the actual members, probably contained in personnel files. Another way to acquire an approximation of the data is to find the requirements of each position (as in job descriptions). This, however, is not the best method, as not all requirements are necessarily filled for each position by the member holding it.

   b. *Answer: 51-75%, Certainty Factor 85*

   The most effective way to estimate the proportion of advanced degrees or training is to estimate the proportions within each of the functions of Hamas and then average them. Each of the functions should be weighted according to the actual number of members on its roster relative to the overall

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organization. However, because of the lack of precise data, in this thesis the functions will all be equally weighted. The average of the estimates is 61.7%.

(1) Advisory Council: 100%. The Advisory Council is the "supreme religious authority" for Hamas and "issues under discussion are referred to a council member able to offer expert advice" (Mishal and Sela 161). Thus, the members must have advanced degrees or many years of training in Islam.

(2) Political Bureau: 90%. "Usually they are well educated and in white-collar professions…" (Mishal and Sela 162). Also, a member may not be well educated but still be in the bureau because of his ability to obtain financial support for Hamas, which is where the bureau's power comes from (Mishal and Sela 162).

(3) Administrative Unit and West Bank and Gaza Office: 100%. The Administrative Unit

> is responsible for coordinating the *da'wa* activities and the Security and Events Units. In addition, the units make the appointments to command roles, formulate plans in coordination with the representatives of other units, and recruit new members. The West Bank and Gaza Office acts as a liaison between the headquarters of the two regions. (Mishal and Sela 162)

Since the Political Bureau created these "to ensure control over Hamas's local units and their daily activities," they probably consist of well-trained men with a great deal of experience.

(4) Security Unit: 15%. The Security Unit's

> main function (is) to gain control of the local population, to "gather information on suspected collaborators with the [Israeli] authorities and [those] who deviated from the Islamic path—thieves, drug dealers, pimps, and traffickers in alcohol drinks and pornographic videocassettes—and their punishment by physical damage to their bodies or property." During the Intifada, the security apparatus's functions expanded to include the printing and distribution of Hamas leaflets as well as the execution of Palestinians suspected of collaborating with Israel. (Mishal and Sela 156)

People with many years of training probably only exist in the printing function and at the highest level of the force that works the local population.

(5)   Events Unit: 10%. The Events Unit is probably responsible for writing slogans, starting demonstrations, enforcing strikes, etc. Thus, only people at the top of the function would have any large degree of training.

(6)   Representatives Abroad: 80%. Representatives abroad will probably need to be well educated to have the ability to recruit financial support and new members while keeping a low profile (especially in countries where Hamas is illegal). However, some representatives may not need a great deal of education and training because they already have contacts and influence in countries that speak their language.

(7)   Islamic Workers Union: 20%. This Union "organizes lectures on Islamic labor laws, which are accompanied by religious preaching" (Mishal and Sela 158). Therefore, the leaders of the Union are probably well educated, and the Union leadership at different companies have probably received training on their roles in the Union. However, the common workers probably are neither highly educated nor well trained, especially in matters related to the Union itself.

(8)   Scientific Medical Association: 50%.

> The Scientific Medical Association, which was set up as a counter to the Palestinian Red Crescent—a stronghold of the left in Gaza Strip—coordinates the activities of medical infirmaries, dental facilities, and the blood bank. The association charges a nominal fee for its services or offers them free of charge to the needy. (Mishal and Sela 157)

The doctors, nurses, technicians, and administrative superiors all have advanced degrees and/or many years of training. Other employees such as janitors, secretaries, and others are probably not highly trained or well educated.

(9)   Association for Sciences and Culture: 100%. "Hamas operates the Association for Sciences and Culture, which coordinates education from kindergarten up to secondary school, taking care to include Islamic religious values at all levels of schooling" (Mishal and Sela 157). All the members of this function would probably have much training in administration, education, and Islamic religious doctrine.

(10)   Supreme Council for Islamic Information: 90%. "As a popular movement, Hamas operates a vast propaganda machine, coordinated by the Supreme Council for Islamic Information, which is in charge of media coverage of Hamas and its activities, relations with the international press, and a press agency (al-Quds Press), with bureaus abroad and in major Palestinian cities" (Mishal and Sela 157). In all likelihood, the great majority of this function are highly educated and/or have many years of training.

(11)   West Bank Headquarters and Gaza Headquarters: 80%. The two headquarters probably consist of the "inside" leaders of Hamas, who, even if they are not highly educated, have had many years of experience (which can be considered training to handle the present). They are older, more experienced leaders (Mishal and Sela 161).

(12)   Committees on education, publications, finance, and prisoners at the district level: 5%. Because these committees are local and are made up by residents, the members probably have little education and training relative to the functions the committees are performing.

3. How many vertical levels separate the chief executive from those employees working at the bottom of the organization?

a.   *Measurement*

Vertical levels are used in Organizational Consultant to determine vertical differentiation. "Vertical differentiation is the number of hierarchical levels between top management and the bottom of the hierarchy" (Burton and Obel 69). A comprehensive organizational chart which describes every level of the organization to the lowest echelon would give precise data.

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b. *Answer: 6 to 8, Certainty Factor 100*

Using the organizational chart found in Figure 1, the author counted the number of levels in the vertical geographical differentiation from the Political Bureau down to the cell member.

```
┌──────────┐        ┌──────────────┐
│ Advisory │ ─ ─ ─  │Political Bureau│
│ Council  │        └──────────────┘
└──────────┘
```

| Administrative Unit | West Bank and Gaza Office | Military Apparatus |

| Events Unit | *Da'wa* activities | Security Unit |

West Bank HQ — Gaza HQ

District Committees

Subdistricts

Villages

Cells
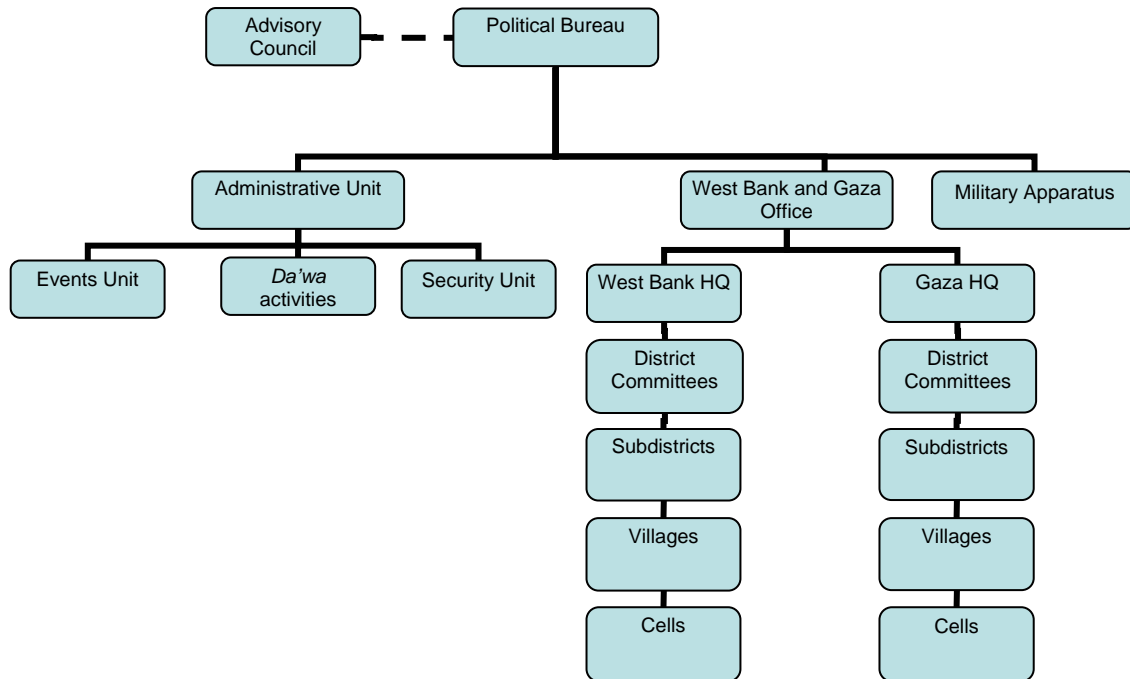
Figure 1.   Limited Organizational Chart of Hamas

4.   What is the average number of levels for the organization?

a.   Measurement

Again, this variable is used by Organizational Consultant to determine the degree of vertical differentiation in the organization. Not all organizations are symmetric (Burton and Obel 71), and this variable takes that factor into account by asking for the average rather than an absolute number. A comprehensive organizational chart would be optimal in determining this variable.

b.   Answer: 6 to 8, Certainty Factor 100

Since several of the functions follow the geographical vertical differentiation, the average number of levels would be 6 to 8.

5.   Including the main center, how many geographic locations are there where organization members are employed?

   a.   Measurement

   Organizational Consultant uses the number of geographic locations to determine spatial differentiation. Spatial differentiation "is the geographical dispersion of the activities in the organization" (Burton and Obel 72). A comprehensive list of where Hamas members do their work, such as medical facilities, mosques, military training camps, offices for the political offices, and the names of countries which have Hamas members striving for political or financial support would give the best data.

   b.   Answer: More than 30, Certainty Factor 100

   In the case of Hamas, geographic centers mean any location at which an actual member of Hamas is based. This would not include fundraising organizations that support Hamas, unless they have direct representatives of the organization at their locations. This also would not include financial supporters of Hamas unless they play a role in policy-making or operations. Because of the large diversity of the functions that Hamas performs and the necessity of remaining undiscovered in many cases, especially in the Gaza Strip and the West Bank, Hamas units are well dispersed; therefore, there are many areas where Hamas members work.

   Jordan, Sudan, Iran, Syria, and Saudi Arabia allow "prominent Hamas figures" to reside in their countries and Hamas has an official relation with Saudi Arabia (Hroub 165). It is also very likely that Hamas has members in other countries doing fundraising efforts, etc.

6.   What is the average distance of these outlying units from the organization's center?

   a.   Measurement

   Organizational Consultant uses this variable to refine the spatial differentiation of the organization. All of the actual locations of all the workplaces described above are required to determine this variable.

b.   *Answer: 11 to 100 miles; Certainty Factor 85*

Organizational Consultant and organizational theory in general consider the main center of an organization to be its headquarters. Because the leaders of Hamas do not meet at any specific place on a regular basis (since their headquarters in Jordan was closed down), the main center of Hamas is best described as the geographic center of the organization. Most of the locations of Hamas workplaces are covert; thus, one can only estimate where they would be and calculate using the estimate with the known locations of social action, etc. Therefore, Hamas facilities can be estimated to exist only in the Gaza Strip and the West Bank.

7.   **What proportion of the organization's total work force are located at these separate units?**

a.   *Measurement*

Organizational Consultant uses this variable to further refine the spatial differentiation of the organization. A list of who is working at what Hamas facilities would fulfill the data requirements of this variable.

b.   *Answer: More than 90%; Certainty Factor 100*

All of Hamas's members work in places other than the main center because the top echelons inside and outside Palestine are dispersed. That is, since there is no headquarters, every member of Hamas works outside headquarters.

D.   **CURRENT FORMALIZATION**

Burton and Obel "measure formalization as the degree to which there exists formally stated rules, in writing" and "how much latitude employees are allowed from standards-the level of compliance" (Burton and Obel 73). The degree of formalization varies greatly between the social functions Hamas performs and its military operations. The risk incurred is that an answer that is an average of the different functions may not describe accurately any of the functions.

1. **Written job descriptions available for?**

    a.   Measurement

    This variable is self-explanatory, and the data could be obtained in list format or from instruction manuals for each of the different offices in the executive body and for the consultative council.

    b.   Answer: all employees, including senior management; Certainty Factor 85

    Written job descriptions are probably available for every job in Hamas's social structure and in its formal hierarchy. Job descriptions may not be available for the military arm or intelligence gathering positions because of the need for secrecy. This answer gets closest to what probably actually represents Hamas.

2. **Where written job descriptions exist, how closely are employees supervised to ensure compliance with standards set in the job description?**

    a.   Measurement

    This variable is needed by Organizational Consultant to help determine the degree of latitude, since not all latitude is actually allowed; some latitude comes from unsupervised employees simply not following instructions. For Hamas, this information could be obtained using human intelligence (human intelligence) or from an expatriate of the organization.

    b.   Answer: moderately close; Certainty Factor 85

    Because of the wide range of functions Hamas performs, the middle answer best describes the overall organization.

3. **How much latitude are employees allowed from standards?**

    a.   Measurement

    This is supervised latitude.   Again, human intelligence or an expatriate from Hamas could give this information.

b.   **Answer: a moderate amount; Certainty Factor 85**

Because of the wide range of functions Hamas performs, the middle answer best describes the overall organization.

4.   **What percentage of non-managerial employees given written operating instructions or procedures for their job?**

a.   *Measurement*

This variable is self-explanatory. The data could be obtained from human intelligence, an expatriate of Hamas, or from manuals or instructions and memorandums for managerial employees telling them to give written instructions to their employees.

b.   **Answer: 61 to 80%; Certainty Factor 85**

Most, if not all, members in Hamas's social structure are probably given written instructions or procedures, and they comprise a majority of the non-managerial employees.   However, in all likelihood Hamas' non-managerial members in the covert structure are not given written instructions at all in order to maintain secrecy.

5.   **Of those managerial employees given written instructions or procedures, to what extent are they followed?**

a.   *Measurement*

This variable describes how closely managerial employees follow instructions and procedures. Human intelligence would be necessary to obtain precise information.

b.   **Answer: some; Certainty Factor 85**

The two types of middle managers in Hamas (the military arm's leadership and the "inside" leadership) only follow instructions some of the time. First, "Hamas's pattern of decentralized organization is expressed in local initiatives [of the military apparatus] that often contradict the official policy and instructions of the top leadership" (Mishal and Sela 159). Second, a constant struggle exists between the priorities of the "outside" leadership, which are dogmatic, and those of the "inside" leadership, which are pragmatic.   The

"outside" leadership is typically much harder in its reactions and policies than the "inside" leadership, which recognizes the need for flexibility to maintain Hamas's social structures.

6.   **To what extent are supervisors and middle managers free from rules, procedures, and policies when they make decisions?**

   a. ***Measurement***

   This variable describes the amount of freedom managerial employees have in the implementation of rules and standards. Human intelligence would be necessary to obtain precise information.

   b. ***Answer: some; Certainty Factor 85***

   Since no data could be obtained for this variable pertaining to the social structure of Hamas, the middle value was taken. However, middle managers and supervisors in Hamas's military arm are very free from rules, procedures, and policies when they make decisions because of their distance from "outside" leadership and their ability to threaten "inside" leadership (Mishal and Sela 159-160).

7.   **What percentage of all the rules and procedures that exist within the organization is in writing?**

   a. ***Measurement***

   Organizational Consultant uses this variable to determine the degree of formalization in terms of actual written rules and procedures; the others have been to determine latitude. Detailed human intelligence and all of Hamas's various manuals would be required to obtain precise data.

   b. ***Answer: 41 to 60%; Certainty Factor 85***

   Since the data could not be obtained, and it is not unreasonable to assume that at least half of the rules and procedures in Hamas are in writing due to the functions it performs in its social structure, the middle value was chosen.

E. CURRENT CENTRALIZATION

Centralization is the degree to which formal authority to make discretionary choices is concentrated in an individual, unit, or level (usually high in the organization). Decentralization is low centralization. We measure centralization by how much direct involvement top managers have in gathering and interpreting the information they use in decision making and the degree to which top management directly controls the execution of a decision. The above issues are important in determining who has authority to influence a decision aside from actually making the decision. (Burton and Obel 75)

In order to effectively determine the degree of centralization in Hamas, it is essential to establish who its top management is. The "outside" leadership of Hamas is a reasonable choice because of the "outside" leadership's ability to direct decisions based on its control of funding. The "inside" leadership, being under the control of the "outside" leadership because of its need for money, is the upper level middle management for Hamas.

1. How much direct involvement does top management have in gathering the information they will use in making decisions?

a. *Measurement*

The amount of direct involvement in information gathering by top management has to do with the degree of influence those in the lower levels of the organization can have on decision making (depending on the information they deliver). If top management makes most of its decisions based on data it itself has collected, there will be little influence from other parts of the organization. The small relative size of top management as compared to the rest of the organization will prevent it from achieving as much awareness, though. Profiles would need to be created on each of the members of the Political Bureau and the Advisory Council of Hamas, as well as each of the "inside" leaders.

b. *Answer: little; Certainty Factor 85*

The Political Bureau and the Advisory Council probably gather little to none of the information they use to make decisions because they are not in the occupied territories and they are unable to function openly. Moreover, the

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"inside" leaders probably do not gather much information needed for the decisions they make (except when dealing with the Palestinian Authority) because of a combination of their notoriety and their need to stay hidden.

2.   To what degree does top management participate in the interpretation of the information input?

a.   Measurement

The degree to which top management participates in the interpretation of information input has an effect on the amount of influence people in other parts of the organization have in decision making. As above, profiles of the top leadership of Hamas would be desirable.

b.   Answer: 0 to 20%; Certainty Factor 85

Hamas's "outside" leadership is not likely to interpret much, if any, of the raw information input. The "inside" leadership and middle managers of the military arm are much more likely to interpret data.

3.   To what degree does top management directly control execution of a decision?

a.   Measurement

This variable has to do with the degree of centralization of decision making within the organization. Again, profiles of the top leadership of Hamas could provide precise information.

b.   Answer: less than 20%; Certainty Factor 85

The Political Bureau, since it uses coordinating bodies to "ensure control over Hamas's local units and their daily activities" (Mishal and Sela 162), probably directly controls execution of little to no activities.

4.   How much discretion does the typical middle manager have over establishing his or her budget?

b.   Measurement

Discretion in budgeting is an important factor in evaluating the centralization of an organization in that funding predetermines many of the

decisions that leadership has to make. A detailed analysis of where Hamas gets its funds, how they are distributed to the various functions, and how much freedom the middle managers within each of the functions is given to plan and budget.

b. Answer: Some; Certainty Factor 85

The "outside" leadership

> were able to gain legitimacy and assume authority based on…their ability to raise funds from supportive governments and communities worldwide for 'inside' civilian and military activities…It is this fund-raising ability that may explain the bureau's primacy in the movement following the Israeli sweep in 1989. (Mishal and Sela 161-162)

Because in all likelihood finances are the way the Political Bureau and the Advisory Council maintain positive control over Hamas inside Palestine, they probably allow only some control over the establishment of budgets. They would allow some control (as opposed to little or no control) because they are not in Palestine and so cannot have a full picture of the movement's needs. The most likely situation is that Hamas' social structure is given a great deal of control over establishing budgets, while the military structure's funding is tightly controlled to ensure its compliance with the "outside" leadership's policies and desires.

5. How much discretion does the typical middle manager have over determining how his or her unit will be evaluated?

a. Measurement

In Organizational Consultant the discretion of the middle manager over determining how his or her unit will be evaluated is akin to how much freedom he or she has in developing criteria for his or her unit to meet. One could obtain data through human intelligence (for the military arm), manuals and job descriptions, and through analysis of the stated goals of each of the functions correlated with actual actions and events.

b. Answer: Some; Certainty Factor 85

Because of the nature of the social services provided by Hamas, middle managers in these functions probably have little control over how their units are evaluated. However, in the military arm and among the rank and file, "(t)asks are defined more 'through the interaction of [local] members than…by the organization's top leaders'" (Mishal and Sela 159); therefore, they very much decide how their units will be evaluated. The middle value was chosen because of the two extremes.

6. How much discretion does the typical middle manager have over hiring and firing personnel?

a. Measurement

The ability to hire and fire is a good indicator of the degree of centralization in an organization. Job descriptions and manuals would give the best information on this variable.

b. Answer: great; Certainty Factor 85

The ability to hire and fire is a difficult variable to contemplate for Hamas. However, since top management is not in the West Bank or Gaza, the middle management probably has a great deal of freedom to hire and fire as it pleases in most cases.

7. How much discretion does the typical middle manager have over personnel rewards (i.e. salary increases and promotions)?

a. Measurement

Organizational Consultant uses this variable to help determine the amount of delegation of authority to the middle manager. For Hamas, records of promotions and their authorizing signatories would be good for the civilian part of the organization. Human intelligence would be necessary to obtain the promotion methods in the covert military part of Hamas.

b. ***Answer: some; Certainty Factor 85***

In Hamas's social structure, middle management discretion over personnel rewards is probably comparable to other organizations that perform the same functions. In its military structure, rewards are probably not controlled by the middle leadership. Rewards for the military structure are promises of heaven for martyrdom, national heroism (Mishal and Sela 159), and promotion (which is probably based more on charisma and ability to lead than management's discretion).

8.   How much discretion does the typical middle manager have over purchasing equipment and supplies?

a.   Measurement

Organizational Consultant uses this variable to help determine the amount of delegation of authority to the middle manager. Manuals containing procedures for purchasing supplies and equipment for each of the functions of Hamas would be optimal.

b.   Answer: Some; Certainty Factor 85

Because of the "outside" leadership's control of the flow of funds into Palestine, middle managers in Hamas probably have a limited amount of discretion in purchasing equipment and supplies. Additionally, the need to obtain supplies from trusted sources could severely limit the ability of middle managers to choose from a variety of vendors (especially where the military apparatus is concerned).

9.   How much discretion does the typical middle manager have over establishing a new project or program?

a.   Measurement

Organizational Consultant uses this variable to help determine the amount of delegation of authority to the middle manager. Manuals containing the

procedures for establishing a new project or program for each function of Hamas would provide the best data.

b. Answer: Some; Certainty Factor 85

Middle managers in Hamas (local leaders and military arm leaders) are limited in their discretion over the establishment of a new project or program by ideology, pragmatic concerns, and dependence upon continued funding by the "outside" leadership. Because the "inside" leadership and those managers of the social programs are much more likely to prefer a moderate approach by Hamas to protect their interests from destruction in response to terrorist attacks, they are more often at odds with the "outside" leadership, which takes a more hard-line approach; thus, with their funding threatened, they will have little discretion in what programs to establish if it is not in strict line with Hamas's ideology. On the other hand, the military arm, confident of continued support from the "outside" leadership, has a much greater ability to establish new projects. In fact, the "inside" and "outside" leadership of Hamas "is occasionally surprised by military actions against Israel about which it had no prior knowledge" (Mishal and Sela 159).

10. How much discretion does the typical middle manager have over how work exceptions are to be handled?

a. Measurement

Organizational Consultant uses this variable to help determine the amount of delegation of authority to the middle manager. Finding records of exceptions that have come up and how they were handled would give optimal data.

b. Answer: Great; Certainty Factor 85

Work exceptions are probably handled by the local leadership in Hamas's social and military structures.

F.   SIZE

The size of an organization plays a role in how an organization is structured. It affects the formalization, centralization, and configuration of the organization. Additionally, the degree of professionalization in an organization affects how that organization is classified in terms of size. The greater the portion of employees who are professionals, the smaller actual number of people it takes to be seen as a "large" company (Burton and Obel 153). Organizational Consultant quantifies this idea using the numbers one through five to represent different degrees of professionalization. One is 0 to 10 percent, two is 11 to 20 percent, three is 21 to 50 percent, four is 51 to 75 percent, and five is 76 to 100 percent professionalized (Burton and Obel 152). The chart shown in Figure 2 describes this.

Professionalization					
Size Measure	1	2	3	4	5
Small	<100	<50	<33	<25	<20
Medium with less impact	101-500	51-250	34-166	26-125	21-100
Medium	505-1000	251-500	167-333	126-250	101-200
Large with less impact	1001-2000	501-1000	334-666	251-500	201-400
Large	2001<	1001<	667<	501<	401<

Table 1.   Thresholds for Categorizing the Adjusted-Size Measure, Number of People Employed (Burton and Obel 153)

1.   How many employees does this organization have?

a.   Measurement

This variable, in conjunction with other questions, allows ORGCON to determine the size of the organization. Precise data could be obtained from a roster of all members of Hamas.

b.   Answer: 5000; Certainty Factor 85

According to Robinson, Hamas has "thousands of activists" (Robinson 3) as opposed to tens or hundreds of thousands, so 5000 was chosen as a middle value.

G. AGE/OWNERSHIP

1. How old is the organization?

a. Measurement

Age is determined relative to where the organization is in its life cycle. Young organizations are still structuring and determining the best way to operate. Mature organizations have found ways to operate effectively and are continuing to perform their functions. Old organizations have become obsolete in their organizational structure and are no longer performing their functions at the top possible level because of changing environmental conditions. A general picture of how effectively Hamas is performing its functions to obtain its goals is necessary to give an accurate answer.

b. Answer: Mature; Certainty Factor 100

Hamas is an organization that has matured from a groundswell splinter off of the Muslim Brotherhood into an organization with well-defined policies, politics, and methods. "Initially intended to be an autonomous organization within the MB movement, Hamas practically turned into the hard core of the Islamic movement, with its own ideological and political stature, which soon overshadowed and in fact co-opted the MB mother movement" (Mishal and Sela 37). In addition to Hamas's social services, this includes the military arm's actions, since Hamas uses that method to fight for a Palestinian Islamist state, which Hamas believes will benefit the Palestinian public tremendously.

2. What kind of ownership does the organization have?

a. Measurement

Because Hamas is a terrorist organization with many elements of a social movement, it does not officially fall into any one of these categories: private, incorporated, public/state owned, or subsidiary. However, one can gain an accurate approximation by looking at the common goals of typical organizations of each type. Private organizations typically have the goal of making money. Incorporated organizations typically have the goal of making profits and contributing to the economic health of a nation. Public/state owned

organizations provide a service or services to the public, and are (or should be) interested in the public's welfare. No criteria can be given to obtain the data, but one might obtain data from other analyses using Organizational Consultant for relatively comparable organizations (e.g. the Red Cross).

b. Answer: Public/state owned; Certainty Factor 85

Hamas is best described as a public/state owned organization, in that it provides services to and for the Palestinian public which it thinks are beneficial to them. This includes the military arm's actions, since Hamas uses that method to fight for a Palestinian Islamist state, which Hamas believes will benefit the Palestinian public tremendously.

H. DIVERSITY

1. Does the organization have many different products?

a. Measurement

In order to accomplish its goals, Hamas must generate influence locally, regionally, nationally, and internationally. Products for Hamas are whatever the organization does to generate influence "above ground." A detailed list of all the political, social, and military actions Hamas takes would be the best source of data.

b. Answer: Many; Certainty Factor 100

Hamas provides to the Palestinian people "Islamic charitable societies, including mosques, classes that teach students to memorize the Quran, zakat (alms tax) committees, medical clinics, relief societies, orphanages, schools and nurseries, and cultural and sports clubs" (Hroub 235). It also conducts terrorist operations and participates in student, professional, and municipal elections (Hroub pp. 216-219). Additionally, "Hamas operates a vast propaganda machine, coordinated by the Supreme Council for Islamic Information, which is in charge of media coverage of Hamas and its activities, relations with the international press, and a press agency (al-Quds Press), with bureaus abroad and in major Palestinian cities" (Mishal and Sela 157).

2.   Does the organization operate in many different markets?

   a.   Measurement

In the context of Organizational Consultant (Burton and Obel 373-374), the definition of market is both "a geographical area of demand for commodities or services" and "a specified category of potential buyers" (Mish 712). For Hamas, this means the places and people the organization can influence with its various operations.

   b.   Answer: Many; Certainty Factor 100

The products produced by Hamas influence the social, military, and political arenas on the local, regional, and international levels with the goal of creating an autonomous Palestinian state, eventually with borders that run from the Jordan River to the Mediterranean Sea.

3.   Does the organization operate in more than one country? If yes, is the activity level abroad greater than 25%?

   a.   Measurement

This variable is self-explanatory. A detailed list of every member of Hamas and where he or she operates would provide the most precise information for this variable.

   b.   Answer: Yes- activity level lower than 25%; Certainty Factor 85

In addition to the Political Bureau and Advisory Council, Hamas's operations outside of Israel and Palestine include propagandizing, recruiting, raising funds. However, these operations probably comprise a small number of members as compared to the thousands in Israel, the West Bank, and Gaza (Robinson p. 3).

4.   Does the organization have many different products in the foreign market?

   a.   Measurement

For Hamas, products in the foreign market include any activities that Hamas performs outside the occupied territories that affect its influence. A

comprehensive list of activities performed in outside countries by Hamas would provide the best data.

b.   Answer: Few; Certainty Factor 85

Hamas provides no services and does not conduct terrorist operations outside of Palestine and Israel.   However, it does produce propaganda abroad to gain international attention and influence (Mishal and Sela 157).

I.   TECHNOLOGY

"Technology is the information, equipment, techniques, and processes required to transform inputs into outputs" (Burton and Obel 220).

1.   What is the major activity of the organization?
a.   Measurement

The first dimension-manufacturing, service, retail, and wholesale-gives a broad type of business indicator. It puts the organization in a technology set. (Burton and Obel 221)

A list of all the services and products Hamas produces would provide the information needed.

b.   Answer: Service; Certainty Factor 100

Hamas provides such services as medical, dental, educational, and even military (Hamas considers conducting terrorist acts a service towards the liberation of Palestine) to gain influence.

2.   What kind of technology does the organization have?
a.   Measurement

One of the ways Burton and Obel interpret technology follows the model by Joan Woodward, which splits technology into three categories: unit production, mass production, and process production. Mass production and process production deal with producing large numbers, with process production

being more specific to customer needs. Unit production refers to "technology in which units are custom made and work is nonroutine." (Burton and Obel 222)

"The unit production is specialized customer-oriented production; the mass production is labor-intensive production of standardized products, while the process production is highly automated with less labor-intensive production" (Burton and Obel 222). The data would have to describe the way that each of the functions conducts business.

b.   **Answer: A specialized customer oriented retail;**
Certainty Factor 100

Hamas tailors its services to fit the situation (e.g. the social services for the Palestinian people and terrorist attacks against the Israelis). This can be seen in lower parts of the organization as well, such as in medical services, education, and politics.

3.   **Does the organization have a routine technology?**

a.   **Measurement**

"Routineness is a central concept in technology." Analyzability and uncertainty are related to routineness. Routine technology "contains easy-to-analyze problems and few exceptions." Non-routine technology "contains difficult-to-resolve problems and many exceptions" (Burton and Obel 223). Each of the functions must be analyzed to determine whether it fits into the definition of routine or non-routine.

b.   **Answer: Somewhat; Certainty Factor 100**

The technologies of the civilian functions of Hamas are routine. The technology of the military function is non-routine. Examples of routine functions are a teacher's common core methods with different students and a doctor's routines with different patients. Examples of non-routine functions are an intelligence collector using different, improvisational methods and a suicide bomber's different tactics in different situations (e.g. not blowing oneself up in an empty market, but looking for a more populated area).

4. **Is the technology divisible?**

   a. *Measurement*

   "Divisibility is the degree to which tasks can be divided into smaller, relatively independent tasks… Technologies may be divisible along a number of dimensions such as functional area, product lines, or geographical regions" (Burton and Obel 371). The greater the degree to which different functions share core technologies and processes, the less divisibility there is. Precise data could be found in a list of all technologies and processes used by each of the functions of Hamas.

   b. *Answer: highly; Certainty Factor 85*

   Each of the functions of Hamas has very different processes and technologies from the others because of the diversity of tasks they perform. However, initial training at some level for the civilian activities of Hamas is centralized. "The trainees fast for three days a month, and within two months each trainee must complete the following tasks: read a book, organize a meeting on a religious topic, watch a video movie, participate in an outing with other trainees, take part in religious lessons for the public, and contribute to a cultural publication by writing for it or distributing it" (Mishal and Sela 158).

5. **Does the organization have a strong or weak dominant technology?**

   a. *Measurement*

   Routine or non-routine technology will prevail in an organization; this variable is used by Organizational Consultant to determine the degree to which one or the other prevails. The list of processes and technologies used to determine routineness would give the data needed.

   b. *Answer: strong; Certainty Factor 85*

   Hamas's technology is probably almost exclusively routine. The majority of the organization is comprised of the social-civil functions which are usually routine, with military operations (very non-routine) only forming a small part of Hamas.

6. **Does the organization use or plan to use an advanced information system?**

a. *Measurement*

An advanced information system will increase routineness and decrease divisibility, making the system more complex but also more able to deal with complexity. All reports of installations of advanced information systems in the occupied territories combined with a knowledge of what organizations are Hamas functions would be needed to determine if Hamas has installed an advanced information system.

b. *Answer: No; Certainty Factor 85*

Hamas does not plan to use an advanced information system because of the security risks.

J. **ENVIRONMENT**

The environment is defined by Organizational Consultant as the variables affecting an organization outside of itself. These variables can include competition, governmental regulation, demand, and sources of raw materials. Hamas's environment contains many variables and factors, such as the Palestinian Authority, Israel, the Palestinian people, the Middle East, and the international community. These variables all affect how Hamas operates and is ultimately structured.

1. **Is the organizational environment complex?**

a. *Measurement*

Environmental complexity (is) defined…as the number of environmental variables and their interdependence. Low organizational complexity indicates that only a few variables describe the environment while high complexity indicates that the environment has many important variables to consider. (Burton and Obel 364)

In order to obtain complete data as to the precise degree of complexity, a stakeholder analysis would be necessary. Reference stakeholder

analysis I do not have a reference for this—I heard of it through Dr. Jansen and assumed it was common knowledge.

b. Answer: Complex; Certainty Factor 100

Hamas has many important factors in its environment to consider, including the PA, Israeli actions, and Palestinian popular opinion which are all very interrelated with each other. Hamas's interactions and relations with the Palestinian Authority and with the Israelis are very dynamic. The latter two alternate between toleration and attempted elimination of Hamas. This is a very small sampling of environmental variables that Hamas has to consider. Hroub's Hamas has a very detailed description of the environment in which Hamas operates.

2. What is the level of uncertainty of the environment?

a. Measurement

 "'(U)ncertainty' refers to the degree of knowledge the organization has about the level or 'value' of environmental variables that are known to exist" (Burton and Obel 365).

b. Answer: high; Certainty Factor 85

While Hamas has a firm understanding of Palestinian public opinion, the organization probably is highly uncertain of existing conditions in the different, competing organizations such as Israeli government, the Palestinian Authority, and regional Arab states.

3. Is the equivocality of the environment low or high?

a. Measurement

Equivocality has to do with internal perceptions of the environment. Internal dialogue can exhibit equivocality. If there is "confusion and lack of understanding" (Burton and Obel 175) about a variable and how it affects the organization, equivocality is present. Internal documents showing whether debate is taking place over different issues could very clearly indicate equivocality within Hamas.

b. Answer: high; Certainty Factor 85

Hamas has combined current political interpretation with established norms and beliefs, differentiating between long-range goals and short-term requirements, showing signs of political flexibility while at the same time demonstrating its conformity with formal Hamas doctrine. Political adjustment in terms of controlled violence, negotiated coexistence, and calculated participation in the PA's system of power and institutions have become the main features of Hamas's political conduct. (Mishal and Sela 48)

Political adjustment has and probably continues to require much discussion and debate within Hamas. A good example of equivocality in Hamas is in the case of dialogue with the Palestinian Authority pertaining to Oslo.

Hamas's 'outside' leaders preferred a strategy of avoidance, or an absence of response, to initiatives geared to assimilate Hamas into the new political reality and thus implicitly legitimize the PA. By contrast, the 'inside' leaders were willing to consider such initiatives while downplaying their significance. (Mishal and Sela 163)

Equivocality in political adjustment is also very apparent in two other examples: the relationship between the "inside" leadership and the military arm, and the internal debate over whether to participate in the Palestinian Authority. First, the relationship between the "inside" leadership and the military arm is tenuous at best. The "inside" leadership's primary concern is maintaining Hamas's social structure, from which the base of Hamas's support comes. Thus, it is critical to this group that Israel and the PA not be roused to such an extent as to threaten this structure. The military arm's primary focus is to continue the armed struggle, regardless of the consequences. Thus, the two groups clash whenever an operation that could potentially lead to the destruction of Hamas's social structure. This is a microcosm of the "gap between opposing considerations of practical needs and normative requirements, representing [Hamas's] dual commitment to both sociocommunal values and religious-nationalist beliefs" (Mishal and Sela 151).

Second, "a secret paper [which] was circulated among Hamas senior members analyzing a spectrum of alternatives ranging from a total boycott of the PA to full and official participation in the election and the PA's institutions"

illustrates the existence of equivocality within Hamas. This is in regard to seeking relief for the Palestinian people and an independent, Islamic Palestine. "The recipients of the document were asked to consider the suggested alternatives in accordance with the movement's goals and ideology and to prepare an answer within a week, to help the leadership decide on the most appropriate election strategy." (Mishal and Sela 121)

4. **Is the organizational environment hostile - how tough is the competition?**

a. *Measurement*

This variable is self-explanatory. A list of threats to Hamas from within Hamas and reports on Hamas's competition would provide the information needed.

b. *Answer: extreme; Certainty Factor 100*

All of the organizations for Palestinians are vying for the hearts, minds, and money of Palestinians and those sympathetic to the Palestinian cause. In particular, the Palestinian Authority alternates between toleration and attempted elimination of Hamas, depending on how much pressure it is receiving from the Palestinian people (the greater the pressure, the greater the toleration) and Israel (the greater the pressure, the lesser the toleration). Moreover, additional hostility comes from Israel and the West (the U.S. in particular). Hamas also operates in an environment filled with violence, from arrests to assassinations to military crackdowns.

> Abu Marzuq…described three major threats…: 1. A threat to Hamas's presence in Jordan, the 'second arena of action after Palestine,' due to joint Israeli and American pressure. 2. A growing international negative perception of Hamas as a murderous terrorist movement that targeted civilians. 3. The exposure of Hamas to domestic Palestinian criticism because it had no positive alternative to the peace process. (Mishal and Sela 104)

Some pressure has been relieved because of the failure of the Oslo peace process, but more pressure is being applied to Hamas (e.g. demolishing

suicide bombers' residences) because of continued terrorist operations against Israeli civilians.

K.   MANAGEMENT PROFILE

1.   Top management may prefer to make most of the decisions themselves; or they may prefer to delegate numerous decisions to other managers i.e., greater preference for decentralization.   What kind of decisions does top management prefer to make?

a.   Measurement

This variable is self-explanatory.   Precise data could be gained from observing the information flows of Hamas to determine how many decisions and at what level does Hamas's Political Bureau make decisions.

b.   Answer: Policy and general management decisions; Certainty Factor 85

Since Hamas's top management (the Advisory Council and the Political Bureau) is located outside the West Bank and Gaza and it uses two "coordinating bodies" in the Administrative Unit and the West Bank and Gaza Office (Mishal and Sela 162), it probably makes few operational decisions. Moreover, despite the "outside" leadership's greater ability to control the military apparatus, it probably only gives orders pertaining to the timing of attacks, not their nature or methods.

2.   Top management may prefer to make long-term decision or short-time decisions.   What kind of decisions does top management prefer to make?

a.   Measurement

This variable plays a role in management's degree of microinvolvement. The shorter-term the decisions made by management, the higher the degree of microinvolvement (Burton and Obel 96).   Orders and statements from the Political Bureau and the Advisory Council would provide the needed information.

b. ***Answer: Long term; Certainty Factor 85***

The Advisory Council's "principle role (is) to provide normative backing and moral justification for Hamas's political conduct and major decisions" (Mishal and Sela 161). The Political Bureau's "ten members are responsible for directing Hamas policies and adjusting them to conform with the shifting realities" (Mishal and Sela 162).

3. Top management may prefer to use very detailed or very aggregate information when making decisions. What level of detail of information does top management prefer to use when making decisions?

a. ***Measurement***

The more detailed information top management wants, the higher the degree of likely microinvolvement (Burton and Obel 96). Reports from the lower echelons of Hamas to top management would show the degree of detail desired for decision making.

b. ***Answer: Very aggregate information; Certainty Factor 85***

Top leadership in Hamas probably does not have access to very detailed information on which to base the general, long-term decisions it makes. For example, Hamas cannot foresee into the distant future who will be the Prime Minister of Israel and whether that party will make an attempt to continue the peace process despite terrorist attacks and how that party will react to attacks (protests made to the PA or actual military retaliation).

4. Top management may prefer to be proactive in its thinking, anticipate future events and take pre-emptive action. It may be reactive; wait and see and then act. What is management's preference on taking action?

a. ***Measurement***

This variable is self-explanatory. Internal documents from the Political Bureau could provide the data on whether it anticipates events or reacts to them.

b. ***Answer: Proactive anticipating future events; Certainty Factor 85***

Hamas could not have survived as hostile an environment as it has without being proactive. Hamas looks to shape events before or as they occur. This can be seen with Hamas's policies on a Palestinian state coexisting with and Israeli state. At first the policy was only to accept a Palestine from the Mediterranean Sea to the Jordan River, but with the gaining success of the peace process, Hamas allowed for an interim solution of coexistence with an Israeli state, so long as it was not recognized (Hroub 73).

Another example is Hamas's encouragement of its members to vote in Council elections.

> Hamas leaders could not ignore the advantages of having a political presence in PA institutions. In particular, they sought a voice in the construction and functioning of legislative, judicial, and educational institutions, whose impact on the social and religious aims of the Islamic movement was undeniable. (Mishal and Sela 140)

Thus, Hamas, while disagreeing with the existence of the PA, sought to participate in it unofficially to influence it to Hamas's advantage if the need arose.

A third example is Hamas's use of terrorist attacks to degrade relations between Israel and the PA for the purpose of breaking down the peace process. The attacks hold another advantage in that they cause Israel to react militarily, giving Hamas the ability to hold them up as oppressors of the Palestinian people.

5. Top management may be risk averse in its decision making or it may have a preference to assume risk. What is top management's attitude towards risk?

a. Measurement

Risk averse leaders tend to prefer higher microinvolvement. Leaders who prefer to assume risk prefer lower microinvolvement (Burton and

Obel 96). The actions of Hamas are reflective of its leadership's willingness to assume risk.

> ### b.   Answer: Risk neutral; Certainty Factor 85

Hamas is willing to take risks in its operations, but not enough to cause a civil war or its own demise by jeopardizing its social structures.

> ### 6.   Top management may prefer to manage through ex ante motivation or ex post control techniques.   What kind of motivation and control does top management prefer?

> ### a.   Measurement

Inspiration typically denotes a lower degree of microinvolvement, whereas control typically denotes a higher degree of microinvolvement. Documents and manuals stating rewards and consequences for actions would provide the information desired.

> ### b.   Answer: A combination of motivation and control; Certainty Factor 100

Hamas uses stories of martyrdom and heroism to inspire its members while also using the controls inherent in Muslim religious doctrine (including beatings and execution) to accomplish discipline (Mishal and Sela 156).   Moreover, common belief in expelling Israel and creating an Islamic Palestine as the overriding purpose of Hamas plays a large role in maintaining the integrity of the organization and motivating members to do what top management says to do.

L.   STRATEGY FACTORS

> ### 1.   Does the organization have a high or low capital requirement?

> ### a.   Measurement

"(H)igh capital requirement is a high capital-to-labor ratio" (Burton and Obel 256). Budgetary documents would provide the precise data needed.

> ### b.   Answer: medium; Certainty Factor 85

Hamas is made up of many varying functions, some of which have high capital-to-labor ratios (e.g. the medical function) and others of which have

low capital-to-labor ratios (e.g. the labor union). Hamas has an annual budget of approximately $70 million (Robinson 30).

2. Does the organization have high or low product innovation?

a. Measurement

 "An organization which develops and introduces new products on a regular basis would be high, where an organization that seldom has a new product would be low" (Burton and Obel 255). One could obtain the right data by observing whether Hamas changes its social services or the way it conducts terrorist attacks and intelligence gathering.

b. Answer: low; Certainty Factor 100

Hamas has maintained its social services from the Muslim Brotherhood (Mishal and Sela 20), adding occasionally to its services (Mishal and Sela 157-158), and it has not changed the types of terrorist attacks it conducts.

3. Does the organization have high or low process innovation?

a. Measurement

An organization which changes technical and administrative procedures has high process innovation. An organization which seldom changes has low process innovation. (Burton and Obel 256)

Documents officially changing procedures or human intelligence to indicate such a change would provide good data.

b. Answer: high; Certainty Factor 100

Without sovereignty and political independence, traditional affiliations and loyalties have become critical factors in Hamas's public activities, as they are often based on personal acquaintance, family blood, or physical proximity to or close affiliation with a site of prayer or religious figure…(G)rassroots activists—young, educated, militant, charismatic figures, often from the lower middle class—had a disproportionate amount of influence and freedom of action in their constituencies. (Mishal and Sela 152, 159)

These factors denote the ability of lower echelons to change procedures as needed.

Additionally, when Sheik Ahmad Yasin was arrested in 1989, Hamas changed its structure from being relational and controlled from within the Gaza Strip and West Bank to being hierarchical with formal structures and procedures and controlled from outside the occupied territories. (Mishal and Sela 160-163)

4. Does the organization have a high or low concern for quality?

a. Measurement

An organization that values "focus on delivering high quality products and services" has a high concern for quality (Burton and Obel 256). To obtain data, one would have to determine what a quality control professional would look for in Hamas and then find reports sent up the structure and determine whether the Political Bureau discussed it.

b. Answer: high; Certainty Factor 85

Hamas has a high concern for quality in its social services, such as its medical and charitable services, and in its terrorist operations, in terms of its methods and timing.

5. How is the organization's price level compared to its competitors?

a. Measurement

"Price level is relative; price level is high if it is higher than the average price in the industry, a low price level is lower than the average" (Burton and Obel 256).

b. Answer: No Answer; Certainty Factor 100

This question does not apply to Hamas.

M.   CLIMATE FACTORS

"The climate is an enduring quality of an organization that (1) is experienced by employees, and (2) influences their behavior" (Burton and Obel 120).   Whereas the environment includes variables outside the organization, climate involves variables internal to the organization.

1.   The level of trust - sharing, openness, trust - is:

a.   *Measurement*

An organization has a high level of trust when the individuals are open, sharing and truthful, where individuals place their confidence. An organization has a low level of trust when the individuals are closed, guarded, unsharing, untruthful, and [this situation] creates an atmosphere of anxiety and insecurity. (Burton and Obel 120-121)

Human intelligence (for low level) would be needed to obtain precise data on this variable. Analysis could also be done on internal written communication (for high level) to determine the openness, honesty, and confidence of Hamas members and leaders.

b.   *Answer: medium; Certainty Factor 85*

"Without sovereignty and political independence, traditional affiliations and loyalties have become critical factors in Hamas's public activities, as they are often based on personal acquaintance, family blood, or physical proximity to or close affiliation with a site of prayer or religious figure" (Mishal and Sela 152).   This phenomenon denotes an atmosphere of trust and confidence when only members of Hamas are present.

On the other hand, because of Hamas's violent activities and the overwhelming military strength of its enemies, the organization has a definite secrecy and distrust about it.

Hamas's units are carefully compartmentalized. Every drafted person, every district and unit, was identified by a code. Members of each cell knew only their cellmates and their supervisor. Members of each unit could communicate with one another but not with members in other districts. Communication between different units operating in separate districts was to be

conducted through the security apparatus's members, who acted as couriers. (Mishal and Sela 158)

2.   The level of conflict - disagreement, friction - in this organization is:

a.   *Measurement*

An organization has a high level of conflict when there is a high opposition of forces, goals and beliefs, which are experienced in friction and disagreement among the individuals. An organization has a low level of conflict when there is harmony in goals, beliefs, which yields a spirit of cooperation among the individuals. (Burton and Obel 122)

Human intelligence or internal communications could obtain the data needed for this variable.

b.   *Answer: low; Certainty Factor 100*

A very good example of Hamas's low level of conflict (as defined by Organizational Consultant) is the survival of the organization despite disagreements between leadership and the rank and file as to how to continue the Intifada. The "inside" leadership has supported a lesser degree of violence than the rank and file in order to preserve Hamas's social structure.

What prevented this organizational disharmony between the central and local leaders from deteriorating even further is the fact that it is operational rather than ideological. As long as the Intifada continued and the expulsion of Israel from the occupied territories topped Hamas's agenda, differences and disagreements among the movement's various groups were treated more as tactics than as principle. (Mishal and Sela 160)

3.   The employee morale - confidence, enthusiasm - in this organization is:

a.   *Measurement*

An organization has a high level of employee morale when the individuals are confident and enthusiastic about the organization-an Esprit de Corps. An organization has a low level of employee morale when the individuals lack confidence and enthusiasm about the organization and individuals lack a sense of purpose and confidence about the future. (Burton and Obel 121)

Human intelligence and reports going up the hierarchy would provide the needed information for this variable.

b.   Answer: high; Certainty Factor 85

Hamas members seem to be very motivated to fight for their cause and provide good services to the Palestinians. For example, "that these men (grassroots activists) were willing to risk their lives in military activities against Israel and then to go underground for months or years to escape detainment by the Israelis have made them national heroes" (Mishal and Sela 159).

4.   Rewards are given in an equitable fashion:

a.   Measurement

An organization is equitable in its rewards when individuals accept rewards as fair and just without bias or favorism. An organization is inequitable in its rewards when individuals see favorism, bias, and non-work related criteria as the basis for rewards. (Burton and Obel 121)

Human intelligence and reports would provide this information.

b.   Answer: highly equitable; Certainty Factor 85

Because Hamas has high morale, members probably think that rewards are given out equitably.

5.   The organization's resistance to change is:

a.   Measurement

An organization has a high resistance to change when individuals believe the inertia is high and presume and desire that "we will do things tomorrow as we did them today." An organization has a low resistance to change when individuals embrace change as the normal circumstance and relish that "tomorrow will be different." (Burton and Obel 121)

b.   Answer: medium; Certainty Factor 100

A medium resistance to change was chosen because of the two conflicting needs of Hamas: to maintain its commitment to its ideology and to ensure the protection of its social structure.

Hamas's adoption of a strategy of political adjustment can be explained in terms of its ability to bridge the gap between opposing considerations of practical needs and normative requirements, representing its dual commitment to both sociocommunal values and religious-nationalist beliefs. As a religious and national movement self-perceived as the sole moral and political alternative to the existing order, Hamas had to maintain its radical image, which is identified with a strategy of all-out confrontation. Yet as a social movement, Hamas had to take into account issues closer to home. Accordingly, Hamas was effectively compelled to develop a way to maneuver politically despite its radical Islamic and national vision and its claim to be able to realize its vision through violent means. (Mishal and Sela 151)

6.   The leadership credibility - respect, inspiration, acceptance - is:

a.   Measurement

The leader credibility is high when individuals have belief in its leadership; there is a sense of respect, inspiration and acceptance of decisions and actions. The leader credibility is low when the individuals lack respect and do not accept the legitimacy of authority. (Burton and Obel 121)

Reports on the degree of insubordination to leadership's policies and human intelligence on the general opinion of lower echelons about leadership would provide the information needed.

b.   Answer: Medium; Certainty Factor 100

Sheik Yassin is looked to very much as an inspirational leader. However, "local activists are committed "to performing tasks and fulfilling responsibilities effectively…rather than to blind loyalty and obedience to superiors" (Mishal and Sela 160). Additionally,

the diminished ability of Hamas's senior leaders to maintain control over the rank and file, and the growing stature of young local activists, underscores the organic nature of Hamas's structure:
1)   Tasks are defined more "through the interaction of [local] members than…by the organization's top leaders."
2)   Local activists are encouraged to "accept broader responsibilities and commitments than those prescribed by their role descriptions."

3)   Decisions are driven more by "interaction among peers than strictly by hierarchical authority and control."
4)   Activities are based more on information from local members than on formal leaders.
5)   Lateral communications and consultation among members in different local positions have become more common than reliance on vertical communications between superiors and subordinates.
6)   Local activists are committed "to performing tasks and fulfilling responsibilities effectively…rather than to blind loyalty and obedience to superiors."

Local leaders and activists participate more in daily decisions about changes in the movement's missions, goals, and functions. (Mishal and Sela 159-160)

7.   The level of scapegoating - shifting of responsibility for actions which fail - is:

a.   *Measurement*

An organization has a high level of scapegoating when individuals believe that the responsibility for actions will be shifted to others – top management, staff, employees, or outsiders. An organization has a low level of scapegoating when individuals believe that the responsible individuals assume the responsibility for the failure of actions. (Burton and Obel 121)

Internal documents on who has taken (or been given) responsibility for a failed action and press releases from Hamas's propaganda machine would provide the information needed.

b.   *Answer: low; Certainty Factor 85*

Hamas's members do not expect to shift responsibility for their actions to others. However, Hamas is in the unique position of sometimes having to blame others for what it considers successes in order to survive the repercussions of the actions of its members.

In practice, Hamas's political leadership in the West Bank, the Gaza Strip, and abroad is occasionally surprised by military actions against Israel about which it had no prior knowledge. Some of the 'inside' leaders often claim that the military units were operating independently rather than on external or high-level political orders. Such claims are meant, first, to give the impression that the political leadership has nothing to do with terrorist actions and thus should be exempt from accusations that

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could make Hamas's community infrastructure vulnerable to retaliation by Israel or the PA. (Mishal and Sela 159)

III. DISCUSSION OF ORGANIZATIONAL CONSULTANT'S RESULTS

A. BACKGROUND

In this chapter, Organizational Consultant's analysis of the data is evaluated in three ways. First, Organizational Consultant's description of Hamas's current characteristics must be assessed to determine its validity. This is to ensure that the evaluation of and recommendations for Hamas are based on an accurate representation. Second, the user will determine what variables make Hamas fitter based on the recommendations of Organizational Consultant and the use of sensitivity analysis. Determination of greater fitness is necessary because the results of the analysis tell the user what situations or conditions to avoid so Hamas is prevented from increasing its effectiveness. Third, the user will determine what variables have the greatest effect in making Hamas less fit based on sensitivity analysis. Determination of lesser fitness is important because the results of the analysis identify what situations or conditions could potentially cause Hamas to exhibit reduced viability as an organization. Organizational Consultant's full results are located in Appendix A.

Sensitivity analysis is the manipulation of a single variable or a combination of variables to determine their effect on a subanalysis or the overall analysis. It is especially useful for determining what variables that have low certainty factors will most affect how Organizational Consultant analyzes the current structure of the organization and for determining which easily changeable variables have the greatest effect in making Hamas more or less fit.

B. ADEQUACY OF THE DESCRIPTION

In order to analyze Hamas accurately, Organizational Consultant must have a proper picture of Hamas's current organizational characteristics. Only after this can Organizational Consultant accurately identify positive and negative attributes about Hamas. However, Organizational Consultant cannot determine whether or not Hamas is appropriately described. Only when the user

determines that Organizational Consultant's feedback about the organization's current characteristics is in line with his or her interpretation of the data is the program's description adequate to analyze the organization for its strengths and weaknesses and give suggestions for improvement. Any feedback that is not in agreement with the user's perceptions is a candidate for sensitivity analysis during further study. (Burton and Obel 353)

The procedure the user employs to determine the adequacy of Organizational Consultant's results needs to be the same every time to ensure repeatability of results. The procedure used is subanalysis, a trial and error method in which the submodules are analyzed individually to determine if they in and of themselves match the user's interpretation. Three examples of subanalysis illustrate this process: the Management submodule, the Climate submodule, and the Strategy submodule.

First, according to the analysis, based on the answers given to the questions in the program, Hamas's management has a low preference for microinvolvement. This is an accurate statement, as Hamas's "outside" leadership is not close enough to local events and most of the functions of Hamas to make very detailed decisions; also, Hamas's "inside" leadership, while it can make more detailed decisions, still has too many divisions to be involved in the details. However, if the user were to disagree with this conclusion, he could manipulate the data by changing one or more variables that affect the submodule. For example, if the user changes the variables for top management's preferences for delegating decisions and preferences for information to "both general and operating decisions" and "very detailed information," Organizational Consultant returns an analysis that supports a preference for high micromanagement.

Additionally, the program is proactive about showing inconsistencies in the answers. In the previous example, when the user changes the data to get a high micromanagement result, Organizational Consultant mentions in its output that the management preferences may be inappropriate and that the "management

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dimensions are out of balance," possibly resulting in ineffective management. This output shows that this could be a possible weak area of the organization, and it forces the user to carefully analyze whether or not the answers given are really correct and the user's understanding of the organization is consistent and accurate.

Second, Organizational Consultant concludes that Hamas currently has a developmental climate:

> The developmental climate is characterized as a dynamic, entrepreneurial and creative place to work. People stick their necks out and take risks. The leaders are considered to be innovators and risk takers. The glue that holds organizations together is commitment to experimentation and innovation. The emphasis is on being on the leading edge. Readiness for change and meeting new challenges are important. The organization's long-term emphasis is on growth and acquiring new resources. Success means having unique and new products or services and being a product or service leader is important. The organization encourages individual initiative and freedom.

In Hamas, people definitely "stick their necks out and take risks." Simply being in the movement is a risk in that it entails possible targeting by Israel and the Palestinian Authority. The group's military arm is particularly willing to undertake actions which may help or hinder the movement's goals, even carrying out attacks on Israel without leadership's prior knowledge. Additionally, Hamas thrives on its ability to mate rigid religious-nationalist doctrine with pragmatic and realistic actions and reactions (experimentation and innovation). For example, Hamas's doctrine dictates that it is to carry out a violent holy war against Israel until there is a Palestine that stretches from the Jordan River to the Mediterranean Sea. However, in order to ease the suffering of the Palestinian people and allow for itself to gain strength and popularity and avoid annihilation because of Israel's vastly greater strength, Hamas has demonstrated an openness to a two state solution, if only in the form of a truce and without the official recognition of Israel as a state.

Also, Hamas has proven very adaptable to new circumstances in its environment. A good example is the advent of the Palestinian Authority and its

agreements with Israel. Hamas chose to allow participation in the local administrative functions to keep from being eliminated altogether from the political scene but not in any functions that have any connection to the Palestinian Authority's relations with Israel. Hamas also continued its terrorist attacks against Israel, giving it the ability to claim adherence to its doctrine of violent struggle against Israel and yet remain flexible enough to give the Palestinian people relief through Palestinian Authority branches. Additionally, Hamas maintains a unique product in that it is the Islamic and political alternative to the Palestinian Authority. Moreover, it strives to be a leader in several fields, including attacking Israel and providing educational and medical services.

Third, in the Strategy submodule, Organizational Consultant considers two different strategies to be about equal in likelihood: analyzer with innovation and analyzer without innovation. Organizational Consultant does this because Hamas has a medium preference for control and low centralization, but it also has high process innovation and no product innovation. A medium preference for control and low centralization are likely characteristics of an analyzer with innovation, and having high process innovation and no product innovation are likely characteristics of an analyzer without innovation (Burton and Obel 261, 264). Organizational Consultant considers analyzer with innovation to Hamas's strategy by a slight margin, while the author originally considered analyzer without innovation to be the correct strategy. A comparison between the characteristics of the strategy types and Hamas is given in Table 2. Two possibilities exist for what Organizational Consultant's ambiguity might mean.

Analyzer Without Innovation		Hamas		Analyzer With Innovation	
Description	**Structure**	**Description**	**Structure**	**Discription**	**Structure**
Low Product Innovation	Medium to High Formalization	No Product Innovation	Medium Formalization	High Product Innovation	Medium Formalization
Medium to High Process Innovation	High Complexity	High Process Innovation	High Complexity	Medium Process Innovation	High Complexity
Many Products	Medium to High Centralization	Many Products	Medium Centralization	Many Products	Medium Centralization
Medium to Low Capital Requirement	Functional or Divisional Configuration Maybe	Medium Capital Requirement	Divisional Configuration	Medium Capital Requirement	Matrix or Divisional Configuration Maybe
High Quality Concern	Simple Configuration If Small	High Quality Concern		High Quality Concern	Simple Configuration If Small
Routine Technology		Routine Technology		Medium Routine Technology	
High Control Level		Low Control Level		Medium Control Level	
Low Price Level		N/A Price Level		Medium Price Level	

Table 2.   Strategy Comparison

First, Organizational Consultant's confusion with the two strategies could be linked to the fact that Hamas can be split into two different structures, one with a large degree of formality and one with a very small degree of formality. The structure that is very loose and cellular is Hamas's terrorist structure. The structure that is very formalized and structured consists of all of Hamas's other organizations. Hamas is a divisional structure that is rigid and well controlled with the exception of one "rogue" division which acts independently due to necessity based on the nature of its work. The terrorist network is so loosely organized that it causes Hamas's overall structure to be evaluated as too informal to allow for analyzer without innovation, which requires a rigid, formalized structure.

On the other hand, according to Burton and Obel, proposition 8.27 of Organizational Consultant is definitional (263). This proposition states, "If product innovation is high and process innovation medium, then the strategy is likely to be analyzer with innovation" (264). It follows that since Hamas has no

product innovation and high process innovation, analyzer with innovation should be negated. However, Organizational Consultant does not weigh this proposition heavily enough for it to negate the choice of analyzer with innovation, and so even though Hamas has no product innovation, the program returns analyzer with innovation rather than without as the most likely strategy for Hamas. Only when the management profile is made to have a preference of high microinvolvement does Organizational Consultant return analyzer without innovation. Thus, according to this line of reasoning, either Organizational Consultant has been configured in error and the program lacks the ability to accurately describe Hamas, or the structure proposed by the author is wrong and therefore a reanalysis of Hamas is necessary.

However, this response ignores the structural ambiguity issue and requires the program to take into account only one variable rather than all the variables. While proposition 8.27 is definitional, other characteristics (such as formality) must be taken into account to determine the strategy of the overall organization. Thus, the possibility that the ambiguity in Hamas's structure is responsible for Organizational Consultant's ambiguous response for the Strategy submodule is much more likely to be true than the program or author being incorrect. Thus, the conclusion of Organizational Consultant that the strategy of Hamas is most likely analyzer with innovation is acceptable to the user.

Having analyzed all of Organizational Consultant's conclusions about Hamas's current characteristics, it can be concluded that the program has adequately described the terrorist organization in its present form. It follows then that Organizational Consultant's conclusions about the fitness of Hamas to its environment are in the appropriate context and can be analyzed.

C.   FITNESS IMPROVEMENT OF HAMAS

Like any organization, Hamas is continually looking to improve the way it is organized and operates to increase its efficiency and success. It is important

for organizations who seek to dismantle Hamas to know in what areas it needs to improve and especially where those improvements are easily made.

Sensitivity analysis is a key method to determining which factors have the greatest marginal impact on fitness, that is, which improvements most drastically change the fitness of an organization. The procedure is to follow all the recommendations of Organizational Consultant first to ensure that the program concludes that Hamas is perfectly fit, then to change each factor (using Hamas's current characteristics) individually to determine the sensitivity of fitness to it, and finally, using that data, to determine which has the greatest marginal impact on Hamas's fitness as a whole. Appendix C, Table 3 shows the answers given for Hamas's current characteristics and a perfectly fit Hamas.

First, when the recommended changes were inputted into Organizational Consultant, the result was a perfect fit as shown in Appendix B. The program had no recommendations for improvement, nor was there any disagreement between what the program recommended and Hamas's characteristics.

Next, each factor that was changed to make Hamas perfectly fit was input individually into Hamas's original characteristics to test the sensitivity of the overall results. Appendix C, Table 4 shows the results of sensitivity analysis completed for each variable.

The factor that provided the greatest marginal impact on fitness improvement was "Proportion of work force located at separate units," which changed Organizational Consultant's analysis of Hamas's complexity from high to medium. All of the other factors only had the effect of removing one of Organizational Consultant's recommendations but did not change the configuration of Hamas, if they had any individual effect at all.

D.   FITNESS DEGRADATION OF HAMAS

Just as Hamas seeks improvement in its efficiency and proficiency, so do organizations who seek the dissolution of Hamas search for ways to degrade

Hamas's ability to operate. It is important for these organizations to know in what areas Hamas is vulnerable and especially which areas are easily targeted.

Here again, sensitivity analysis is a key method to determining which factors have the greatest marginal impact on fitness, that is, which degradations most drastically change the fitness of the organization. The procedure for this section is first to change each factor (using Hamas's current characteristics) individually to determine the sensitivity of fitness to it; then, using that data, to determine which has the greatest marginal impact on Hamas's fitness as a whole, and finally, to determine a combination of easily changeable values to ensure that the Organizational Consultant concludes that Hamas is totally degraded. Appendix C, Table 5 shows the answers given for Hamas's current characteristics and a completely unfit Hamas

First, each variable in Organizational Consultant's question bank was tested for sensitivity to negative trends. Appendix C, Table 6 shows the results of sensitivity analysis completed for each variable.

The Management Profile section of variables had the greatest marginal impact on fitness degradation. In this section, four of six factors degraded the fitness of Hamas to its environment. Any variable that made Hamas's leadership more involved in the activities of the lower part of the organization threw the management dimensions out of balance. According to Organizational Consultant, "This is likely to result in an ineffectual individual."

Additionally, inputting a high capital requirement factor or any option for the number of products less than "many" changed the strategy of Hamas to defender. This has several consequences: Hamas then has a wrong strategy for the number of markets in which it is involved, for the level of complexity of its environment, and for its internal climate.

> Hamas has both a defender strategy and many different markets and/or products. In some situations, this may cause problems! A defender strategy is easier to manage for a few products or markets as management can focus attention on a few issues well…The recognition of when to give up a defensive strategy for a given product or market requires a good deal of

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management attention and the need for change is frequently missed or realized late; needed adaptation is then even more difficult. For many products or markets, a uniform defender strategy is likely to be a mismatch for some products or markets. A complex and mixed strategy is required.

When the environment is not well defined - that is, when the organization cannot anticipate the important environmental factors - the defender strategy is not appropriate! A defender strategy is not innovative or adaptive…The defender is trying to maintain the status quo and defend its market share, product lines, production processes, etc. This is risky as the market or other environmental values change outside the range of the defender's position. Then there is a serious mismatch between what the defender is doing and what the market will support. Here the organization must prepare to shift quantities and perhaps products to meet the uncertainty in the environment. An analyzer strategy is probably more appropriate.

Hamas has a developmental climate. This is a mismatch with a defender strategy! A developmental climate is flexible and externally oriented. A defender strategy focuses on the status quo and its continuation. A developmental climate is more compatible with an analyzer or prospector strategy.

In conclusion, the area of Management Profile contains the easiest factors to change. These variables could be changed by somehow putting enough pressure on Hamas's leadership to get them to take a much larger role in internal affairs at the lowest levels of the organization.

E.   CONCLUSION

Having determined the best answers for each of the variables from the information available, the current data was verified to be accurate according to the views of the user by inputting it into Organizational Consultant and determining whether the program's description of Hamas was adequate. The data was then subjected to sensitivity analysis using slightly different procedures to determine what variables improved Hamas and which degraded Hamas as an organization, with particular emphasis on variables that are more easily modified by outside forces. These analyses of Hamas's strengths and weaknesses is what can allow the United States to prevent Hamas from becoming stronger and

exploit and weaken Hamas actively by providing specific parts of the organization and its environment to target.

IV.   CONCLUSIONS AND RECOMMENDATIONS

A.   BACKGROUND

In the previous chapters, a method for using Organizational Consultant to analyze terrorist organizations (specifically Hamas) was investigated. Hamas was parsed and analyses developed in the categories of Size, Climate, Management Style, Strategy, Current Organizational Characteristics, and Recommendations. The final chapter answers the second question asked in the first chapter: Is the data attainable from open literature on Hamas sufficient for using Organizational Consultant to get acceptable results?

It answers that question by exploring the accuracy and effectiveness of the results obtained from Organizational Consultant using data derived from open literature on Hamas. The research conducted to use the program is instrumental to the accuracy of the results because the information gathered directly affects Organizational Consultant's output. In this, the utility and quality of Organizational Consultant's conclusions about Hamas will be ascertained. From this exploration, the recommendations for continuing this method of analysis can be made.

B.   CONCLUSIONS

Organizational Consultant is a useful tool for application to corporations and small businesses. Most organizations have characteristics that are not optimized to allow for their maximum performance. Organizational Consultant analyzes the organization's current structure, climate, and environment. Then it makes recommendations about what changes to make to the organization. This is useful to business operators who desire to improve the profitability or efficiency of their organization. Business operators are able to ascertain their organizations' strengths and weaknesses. Additionally, they know to what characteristics their organizations are particularly sensitive. Moreover, they are

able to implement ideas and get an idea of their results without causing major disruption within the organization.

Organizational Consultant is also very useful for students learning about organizational theory and organizational design. The program provides a prime medium for utilizing the knowledge gained from organizational theory to implement in organizational design. Students are able to take real organizations and define them according to the program, then experiment with them in order to discover what works and what doesn't. Thus, before the student enters his profession, he has some practical experience. In summary, "Organizational Consultant is a decision-support tool that can help managers, students, and consultants diagnose organizational problems and recommend organizational changes" (11).

Since Organizational Consultant is a good tool for organization operators and students to describe and analyze organizations, it is likely that the program would be a good tool for the U.S. Government, with its analysts, to use to describe terrorist organizations. And Organizational Consultant does provide much of the necessary knowledge base and relational information to allow for an accurate and useful analysis of Hamas. For example, the level of detail of knowledge about Hamas required by the program opens the eyes of the user to many characteristics of Hamas not previously considered. Moreover, that level of detail reveals precisely how much the user knows and does not know about Hamas. While using Organizational Consultant to analyze Hamas was beneficial in these ways, some problems arose while conducting the analysis.

First, the data for analyzing Hamas was obtained in only three sources. The vast majority of information was obtained from a single book, The Palestinian Hamas. This book was the only source that contained the critical organizational data required for using Organizational Consultant. While a very useful source, having been published in 2000, it is time late and therefore susceptible to inaccuracies due to changes in the organization and leadership. This is especially true in Hamas's environment, where leaders are arrested or

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killed and the organization itself has to be very fluid in order to survive. Additionally, the authors wrote using historical facts and information as well as opinions and interviews to deduce their information about attitudes, morale, and relationships in Hamas. The way they wrote about Hamas is certainly influenced by their own and their subject's biases and assumptions. If any of the information is inaccurate or biased, that trait will follow through the analysis, causing inaccuracies in Organizational Consultant's results.

Because the user defines the accuracy of Organizational Consultant's description of the organization, the program's analysis is entirely based upon the extent of knowledge of the user and his biases and prejudices. Therefore, in this case, the data inputted into Organizational Consultant has been interpreted twice (by the authors of The Palestinian Hamas and by the author of this work), further endangering the accuracy of the analysis. Since all inputs are potentially subjective to some degree, the results are subjective, not objective or empirical. The outcome is that all analyses performed by Organizational Consultant will be subjective, so great care must be taken to ensure the accuracy of such analyses.

Moreover, some data was simply not available due to the nature of Hamas as a terrorist group. For example, no accurate rosters or even numbers of members were obtainable for input into Organizational Consultant. This lack certainly had a detrimental effect on the output, as the number of employees has a great effect on the size component and thus the degree of professionalization that Organizational Consultant evaluates Hamas to have. Thus, the data from open literature was not sufficient to draw acceptable (that is, useable) results from Organizational Consultant. A wider range of sources is necessary to negate biases and subjectivity in the data.

Second, most of the descriptions of the current characteristics of Hamas in the framework of Organizational Consultant's questions are imprecise translations; that is, for Hamas, while it follows in general the principles of an organization, the information sought by Organizational Consultant is fundamentally different from what the terrorist organization is. For example, the

number of job titles in Hamas is very difficult to determine. There is no list of specific job titles, and estimating the number is made difficult by the fact that some functions of the organization have greater ambiguity in their formality than others. Certainly the protester at a Hamas rally should not have a formal job title, and surely the doctor who works at the Red Crescent should, but what about the bomb lab chemist who works incognito to manufacture weapons? There is more ambiguity here than Organizational Consultant allows for. Moreover, especially because of this ambiguity, the question arises over whether the number of job titles should be given more or less weight when analyzing terrorist organizations.

However, Organizational Consultant's results and the study required to develop an analysis are useful to the user. Unexpected results prompt deeper investigation. The user, in order to find reconciliation, has to investigate the basis of his/her conclusion as well as that of Organizational Consultant. This investigation reveals the data, thinking process, or program process that causes the disagreement. This process leads to a more refined analysis of the organization being studied.

A good example of this is the issue of Hamas's strategy as defined by Organizational Consultant. The program gave a response that the author did not originally agree with. After further analysis of Hamas's structure and a deeper look into how Organizational Consultant processes and weighs the variables, the output was determined to be acceptable.

Next, while the recommendations Organizational Consultant makes are all plausible in that Hamas could potentially modify its structure and behavior to better fit its environment, the recommendations are lacking in practicality. Because Organizational Consultant is not designed for analyzing organizations for the purpose of weakening an organization, it does not offer any recommendations on how to weaken Hamas. The user is left to use the recommendations with positive effects to conduct sensitivity analysis to determine the easily affected weaknesses of the organization. Once these recommendations with negative effects have been identified, they range in ease

of implementation by outside forces (e.g., U.S. forces) from as simple as removing effective leadership from power to as difficult as attempting to get Hamas to change its organizational configuration.

However, the recommendations made by Organizational Consultant do have some utility in that it can be shown that, in some cases, Hamas only improves its ability to operate at its own risk. This is especially true in the recommendation that Hamas minimize its degree of horizontal and vertical differentiation. Hamas cannot lower the degree of horizontal differentiation because it must maintain a highly diverse number of vocations to maintain its influence in Palestinian society and bring in enough income to afford its terror activities. Additionally, Hamas cannot lower the degree of vertical differentiation because that differentiation allows Hamas leadership to operate with the flexibility to take or deny responsibility for the actions of those in the lower echelon, and it enables the terrorist arm of Hamas to remain covert while the overall organization is public.

Fourth, according to the intended design of Organizational Consultant, the user should be able to change the conclusion of any submodule using the "Change Conclusion" button in the submodule output even if, according to Organizational Consultant's analysis, the conclusion is inaccurate. This ability should give the user the chance to modify the analysis without changing all the variables to get the desired result for experimental purposes. However, even if the user is certain about his inputs to the variables, this action will have no effect on the analysis of the organization as a whole, as Organizational Consultant ignores user-inputted conclusions and uses its own conclusions regardless when analyzing the overall organization. This problem nullifies any purpose the "Change Conclusion" button might have had.

Organizational Consultant is incapable of accounting for the complexity of Hamas. For example, according to Organizational Consultant, the climate is developmental, entailing a high degree of risk-taking. This is true for the "outside" leadership and for the covert terrorist arm, but it is certainly not true for

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the "inside" leadership, who are very protective of Hamas's social infrastructure. Another example is that according to Organizational Consultant's analysis, "Success means having unique and new products or services and being a product or service leader is important." But Hamas is successful without creating new products or services on a regular basis.

Additionally, Hamas as an organization has parts that are in terms of structure and climate are diametrically opposed. For example, the "inside" leadership is conservative in its behavior, policies, and ideas and it is formally and rigidly structured. A different part of Hamas, the terrorist arm, is very loosely structured and is filled with flexible risk-takers for leaders. On this and many other occasions a middle value had to be chosen to describe the organization in its entirety. Thus no part of the organization was adequately described.

Another example of a factor that plays into Hamas's structure, climate, and strategy for which Organizational Consultant cannot account is the morale of those people outside the organization. Palestinian public opinion plays a large role in the decisions and activities of Hamas both as a social structure and a terrorist organization. Organizational Consultant does not have any way of including this factor in its analysis of Hamas.

Size, as defined by Organizational Consultant, is dependent upon the number of people in an organization and the degree of professionalization within that organization. The more people that are professionals, the less total people it takes for an organization to be defined as "large." Additionally, the size of an organization "turns out to be a moderator of the effect of other contingencies" (Burton and Obel 152). This presents a major problem when there is very much difficulty in determining the number of employees and their professionalization.

That being said, it is very difficult to accurately determine Hamas's size. Since Hamas is a covert organization with a terrorist arm, its rosters are kept secret to the greatest extent possible, so there is no public documentation of official membership or employment. Because of this, the size of Hamas must be determined using some means of estimation. The definition of "employee" has to

be interpreted in order to determine who is actually in the organization and who is merely a supporter. For this study an employee was defined as one who worked directly for Hamas, whether for compensation or not, to the specific exclusion of strictly monetary supporters and protesters. However, that is not the only interpretation that can be used, and different interpretations can create widely varying analyses.

Some successes were encountered during this analysis. First, some degree of data was obtainable for every question that Organizational Consultant asked. There was no question left unanswered that warranted answering in the context of terrorist organizations. Also, the extreme difficulty in obtaining accurate, unbiased information about Hamas in particular and any terrorist organization with the degree of specificity required by Organizational Consultant was revealed without delaying this analysis. Lastly, a successful analysis of Hamas was performed, problems identified, and now further research on the topic can continue.

C.   RECOMMENDATIONS

Using Organizational Consultant has been shown to be a feasible method for analyzing terrorist organizations' structure, environment, and climate. However, some adjustment of the program is required in order to achieve the optimum results of identifying specific characteristics that enable an outside group to force negative change in the terrorist organization without too great a cost.

First, open sources do not provide information with the volume or specificity required by Organizational Consultant. Greater access to information about terrorist organizations and to the organizations themselves will enable analysts to draw better, more accurate conclusions using Organizational Consultant.

Next, working definitions need to be standardized to allow analysis to be conducted on various terrorist organizations with the same assumptions about

what business terms mean in the world of terrorist organizations. If the perception of business terms can change, the results will differ for two analyses of the same organization. The best way to develop strong working definitions of business terms in terms of terrorist organizations is through a cyclic experimental method, analyzing a single terrorist organization using differing assumptions about the same business terms until the best results emerge.

Third, the relationships within Organizational Consultant between various characteristics need to be adjusted to fit with the assumptions and aspects unique to terrorist organizations. Organizational Consultant provides an excellent template for the development of a program that analyzes terrorist organizations in their context.

Fourth, additional sensitivity analysis is required to ensure that Hamas's strengths and weaknesses are fully parsed and understood. Additionally, splitting the organization and analyzing its terrorist arm and the rest of the organization separately could provide valuable insights into each part's strengths and weaknesses as well as possible ways to break the organization apart based on the parts' relationship.

Organizational Consultant is a very strong starting point for analyzing terrorist organizations in terms of organizational theory and design. Certainly, further study will make this method of analysis an indispensable tool in deciphering the key to destroying terrorist organizations once and for all.

APPENDIX A. ORGANIZATIONAL CONSULTANT RESULTS FOR HAMAS'S CURRENT CHARACTERISTICS

REPORT SUMMARY - Hamas

Time: 12:48:21 PM, 12/24/2002
Scenario: Middle Case

INPUT DATA SUMMARY

The description below summarizes and interprets your answers to the questions about your organization and its situation. It states your answers concerning the organization's current configuration, complexity, formalization, and centralization. Your responses to the various questions on the contingencies of age, size, technology, environment, management style, cultural climate and strategy factors are also given. The writeup below summarizes the input data for the analysis.

- Hamas has a divisional configuration (cf 100).
- Hamas has a large number of different jobs (cf 85).
- Of the employees at Hamas 51 to 75 % have an advanced degree or many years of special training (cf 85).
- Hamas has 6 to 8 vertical levels separating top management from the bottom level of the organization (cf 100).
- The mean number of vertical levels is 6 to 8 (cf 100).
- Hamas has more than 30 separate geographic locations (cf 100).
- Hamas's average distance of these separate units from the organization's headquarters is 11 to 100 miles (cf 85).
- more than 90 % of Hamas's total workforce is located at these separate units (cf 100).
- Job descriptions are available for all employees, including senior management (cf 85).
- Where written job descriptions exist, the employees are supervised moderately closely to ensure compliance with standards set in the job description (cf 85).
- The employees are allowed to deviate a moderate amount from the standards (cf 85).
- 61 to 80 % non-managerial employees are given written operating instructions or procedures for their job (cf 85).
- The written instructions or procedures given are followed to some extent (cf 85).
- Supervisors and middle managers are to some extent free from rules, procedures, and policies when they make decisions (cf 85).
- 41 to 60 % of all the rules and procedures that exist within the organization are in writing (cf 85).
- Top Management is only a little involved in gathering the information they will use in making decisions (cf 85).

- Top management participates in the interpretation of less than 20 % of the information input (cf 85).
- Top management directly controls 0 to 20 % of the decisions executed (cf 85).
- The typical middle manager has some discretion over establishing his or her budget (cf 85).
- The typical middle manager has some discretion over how his/her unit will be evaluated (cf 85).
- The typical middle manager has great discretion over the hiring and firing of personnel (cf 85).
- The typical middle manager has some discretion over personnel rewards - (ie, salary increases and promotions) (cf 85).
- The typical middle manager has some discretion over purchasing equipment and supplies (cf 85).
- The typical middle manager has some discretion over establishing a new project or program (cf 85).
- The typical middle manager has great discretion over how work exceptions are to be handled (cf 85).
- Hamas has 5000 employees (cf 85).
- Hamas's age is mature (cf 100).
- Hamas's ownership status is public (cf 85).
- Hamas has many different products (cf 100).
- Hamas has many different markets (cf 100).
- Hamas operates in many countries with a low-activity level (cf 85).
- Hamas has few different products in the foreign markets (cf 85).
- Hamas's major activity is categorized as service (cf 100).
- Hamas has a specialized customer-oriented service technology (cf 100).
- Hamas has a medium routine technology (cf 100).
- Hamas's technology is highly divisible (cf 85).
- Hamas's technology dominance is strong (cf 85).
- Hamas has no advanced information system (cf 85).
- Hamas's environment is complex (cf 100).
- The uncertainty of Hamas's environment is high (cf 85).
- The equivocality of the organization's environment is high (cf 85).
- Hamas's environment is extremely hostile (cf 100).
- Top management prefers to make policy and general resource allocation decisions (cf 85).
- Top management primarily prefers to make long-term decisions (cf 85).
- Top management has a preference for very aggregate information when making decisions (cf 85).
- Top management has a preference for proactive actions (cf 85).
- Top management is risk neutral (cf 85).
- Top management has a preference for a combination of motivation and control (cf 100).
- Hamas operates in an industry with a medium capital requirement (cf 85).
- Hamas has a low product innovation (cf 100).
- Hamas has a high process innovation (cf 100).

- Hamas has a high concern for quality (cf 85).
- Hamas's price level is undetermined relative to its competitors (cf 100).
- The level of trust is medium (cf 85).
- The level of conflict is low (cf 100).
- The employee morale is high (cf 85).
- Rewards are given in a highly equitable fashion (cf 85).
- The resistance to change is medium (cf 100).
- The leader credibility is medium (cf 100).
- The level of scapegoating is low (cf 85).

THE SIZE

The size of the organization - large, medium, or small - is based upon the number of employees, adjusted for their level of education or technical skills.

Based on the answers you provided, it is most likely that your organization's size is large (cf 85).

Between 51 and 75 % of the people employed by Hamas have a high level of education. Adjustments are made to this effect. The adjusted number of employees is greater than 2,000 and Hamas is categorized as large.

THE CLIMATE

The organizational climate effect is the summary measure of people and behavior.

Based on the answers you provided, it is most likely that the organizational climate is a developmental climate (cf 85).

The developmental climate is characterized as a dynamic, entrepreneurial and creative place to work. People stick their necks out and take risks. The leaders are considered to be innovators and risk takers. The glue that holds organizations together is commitment to experimentation and innovation. The emphasis is on being on the leading edge. Readiness for change and meeting new challenges are important. The organization's long-term emphasis is on growth and acquiring new resources. Success means having unique and new products or services and being a product or service leader is important. The organization encourages individual initiative and freedom.

An organization with low level of conflict can be categorized to have a developmental climate. Medium to high leader credibility characterizes an organization with a developmental climate. When the organization has a high to medium level of trust it is likely that the organization has a developmental climate. Employees with a high morale is frequently one element of a

developmental climate. Moderately to high equitable rewards in the organization drives the climate towards a developmental climate. An organization with a medium level of scapegoating may have a developmental climate.

THE MANAGEMENT STYLE

The level of management's microinvolvement in decision making is the summary measure of management style. Leaders have a low preference for microinvolvement; managers have a high preference for microinvolvement.

Based on the answers you provided, it is most likely that your management profile has a low preference for microinvolvement (cf 73).

The management of Hamas has a preference for delegating decisions. This will lead toward a low preference for microinvolvement. Management has a long-term horizon when making decisions, which characterizes a preference for a low microinvolvement. Since the management has a preference for making decisions on the basis of very aggregate information a low preference for microinvolvement characterization is appropriate. The management of Hamas has a preference for taking actions when making decisions. This will lead toward a low preference for microinvolvement because meeting the problems before they arise allow you to work on the general level and not being consumed with the very detailed decisions that can best be made at lower level in the organization.

THE STRATEGY

The organization's strategy is categorized as one of either prospector, analyzer with innovation, analyzer without innovation, defender, or reactor. These categories follow Miles and Snow's typology. Based on your answers, the organization has been assigned to a strategy category. This is a statement of the current strategy; it is not an analysis of what is the best or preferred strategy for the organization.

Based on the answers you provided, it is most likely that your organization's strategy is an analyzer with innovation strategy (cf 77).

It could also be: an analyzer without innovation (cf 76).

It could also be: a defender (cf 69).

An organization with an analyzer with innovation strategy is an organization that combines the strategy of the defender and the prospector. It moves into the production of a new product or enters a new market after viability has been

shown. But in contrast to an analyzer without innovation, it has innovations that run concurrently with the regular production. It has a dual technology core.
For a medium routine technology, Hamas has some flexibility. It is consistent with an analyzer with innovation strategy. An organization with a medium capital investment is likely to have some capabilities rather fixed, but can also adjust. The analyzer with innovation which seeks new opportunities but also maintains its profitable position is appropriate. With a concern for high quality an analyzer with innovation strategy is a likely strategy for Hamas.

An organization with an analyzer without innovation strategy is an organization whose goal is to move into new products or new markets only after their viability has been shown yet maintains an emphasis on its ongoing products. It has limited innovation related to the production process; generally an analyzer without innovation does not have product innovation.
The capital requirement of Hamas is not high, which is consistent with an analyzer without innovation strategy. With a concern for high quality an analyzer without innovation strategy is a likely strategy for Hamas.

An organization with a defender strategy is an organization that has a narrow product market domain. Top managers in this type of organization are expert in their organization's limited area of operation but do not tend to search outside their domains for new opportunities. As a result of this narrow focus, these organizations seldom need to make major adjustments in their technology, structure, or methods of operation. Instead, they devote primary attention to improving the efficiency of their existing operations.
With a concern for high quality a defender strategy is a likely strategy for Hamas.

THE CURRENT ORGANIZATIONAL CHARACTERISTICS

Based on your answers, the organization's complexity, formalization, and centralization have been calculated. This is the current organization. Later in this report, there will be recommendations for the organization.

The current organizational complexity is high (cf 93).

The current horizontal differentiation is high (cf 85).

The current vertical differentiation is medium (cf 100).

The current spatial differentiation is high (cf 85).

The current centralization is medium (cf 85).

The current formalization is medium (cf 85).

The current organization has been categorized with respect to formalization, centralization, and complexity. The categorization is based on the input you gave and does not take missing information into account.

SITUATION MISFITS

A situation misfit is an unbalanced situation among the contingency factors of management style, size, environment, technology, climate, and strategy.

The following misfits are present: (cf 100).

Hamas has a low product innovation but does not have a certain environment. This situation calls for a review and suggests that the organization consider greater product innovation. Low product innovation means the same products are available for an extended period.   In a certain environment with little change in customer demands and preferences, there is little need for new products. But, with increasing uncertainty in customer demand, new competitor strategies, possible governmental actions, shifting customer tastes, etc., current products are likely to be mismatched with this changed environment.   New products and innovation will likely be required to adapt and meet the emerging needs and opportunities of the new environment.
Hamas has many markets and a low product innovation. You may want to consider whether the product innovation is high enough. Unless the many markets are very stable, it is likely that new products should be introduced; thus, some product innovation is needed to meet these variations in market demand.
Hamas has many products and a low product innovation. You may want to consider increasing product innovation. Unless the many products are in very stable markets, new products will be needed.   Low product innovation will likely create a mismatch with the product demands of the marketplace. New products and new product innovation will be required to meet the changing product needs.

ORGANIZATIONAL CONSULTANT RECOMMENDATIONS

Based on your answers about the organization, its situation, and the conclusions with the greatest certainty factor from the analyses above Organizational Consultant has derived recommendations for the organization's configuration, complexity, formalization, and centralization. There are also recommendations for coordination and control, the appropriate media richness for communications,

and incentives. More detailed recommendations for possible changes in the current organization are also provided.

ORGANIZATIONAL CONFIGURATIONS

The most likely configuration that best fits the situation has been estimated to be a divisional configuration (cf 81).

It is certainly not: a machine bureaucracy (cf -100).

A divisional organization is an organization with self-contained unit grouping into relatively autonomous units coordinated by a headquarters, (product, customer, or geographical grouping).
When the organization is large, the configuration can be a divisional configuration. Because the organization has many products, the configuration should be divisional. The divisionalization of Hamas may be based on products or product groups. The divisionalization of Hamas may be based on markets. The divisional configuration may be a multi-domestic structure. Because of the low foreign product/service diversity and the low international involvement of Hamas, the configuration should be either an international functional configuration or an international division configuration.

When the organization is confronted with hostility, it cannot be a machine bureaucracy. A machine bureaucracy cannot act appropriately when unexpected events occur.

ORGANIZATIONAL CHARACTERISTICS

The recommended degree of organizational complexity is low (cf 66).

Not much is known about the environment since both the environmental uncertainty and the environmental equivocality of Hamas are high. In this situation, the organizational complexity should be low. This allows the organization to adapt quickly. When the environmental hostility of Hamas is high, organizational complexity should be low.

The recommended degree of horizontal differentiation is low (cf 66).

The recommended degree of vertical differentiation is low (cf 86).

The recommended degree of formalization is low (cf 78).

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Since the set of variables in the environment that will be important is not known and since it is not possible to predict what will happen, no efficient rules and procedures can be developed, which implies that Hamas's formalization should be low. When environmental hostility is high formalization should be low. Low formalization is consistent with top management having a low preference for microinvolvement. A developmental climate in the organization requires a low level of formalization.

The recommended degree of centralization is high (cf 71).

When there is a medium capital requirement and the product innovation is low, as is the situation for Hamas, centralization should be high to obtain efficiency. When the environment is extremely hostile, top management must take prompt action and centralization must be high.

Hamas's span of control should be moderate (cf 64).

Since Hamas has some technology routineness, it should have a moderate span of control.

Hamas should use media with high media richness (cf 85).

The information media that Hamas uses should provide a large amount of information (cf 85).

Incentives should be based on results (cf 85).

Hamas should use meetings as means for coordination and control (cf 89).

When the environment of Hamas has high equivocality, high uncertainty, and high complexity, coordination and control should be obtained through integrators and group meetings. The richness of the media should be high with a large amount of information. Incentives must be results based.Coordination within each division is very important. Coordination between (among) divisions is usually relegated to top management, which is also concerned about strategic direction and allocation of funds between (among) the divisions.Technology efficiencies can be obtained by sharing technology, information and new developments across divisions. Liaison managers and technology committees are possible coordination mechanisms. Conferences among technical professionals can be very effective.When the organization has a developmental climate, coordination should be obtained using planning, integrators and meetings. Incentives could be results based with an individual orientation. An

organization with a developmental climate will likely have to process a large amount of information and will need information media with high richness.

ORGANIZATIONAL MISFITS

Organizational misfits compares the recommended organization with the current organization.

The following organizational misfits are present: (cf 100).

Current and prescribed complexity do not match.
Current and prescribed centralization do not match.
Current and prescribed formalization do not match.

MORE DETAILED RECOMMENDATIONS

There are a number of more detailed recommendations (cf 100).

You may consider decreasing the number of positions for which job descriptions are available.
You may consider fewer written job descriptions.
Top management may consider gathering the information needed for decision making themselves.
Top management may interpret and analyze more information itself.
Top management may control the execution of decisions more actively.
You may give middle managers less discretion on hiring and firing personnel.
The typical middle manager may be given less discretion over how work exceptions are to be handled.

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APPENDIX B. ORGANIZATIONAL CONSULTANT RESULTS FOR A PERFECTLY FIT HAMAS

REPORT SUMMARY - Hamas

Time: 12:03:34 PM, 12/16/2003
Scenario: Perfectly Fit

INPUT DATA SUMMARY

The description below summarizes and interprets your answers to the questions about your organization and its situation. It states your answers concerning the organization's current configuration, complexity, formalization, and centralization. Your responses to the various questions on the contingencies of age, size, technology, environment, management style, cultural climate and strategy factors are also given. The writeup below summarizes the input data for the analysis.

- Hamas has a divisional configuration (cf 100).
- Hamas has a small number of different jobs (cf 85).
- Of the employees at Hamas 51 to 75 % have an advanced degree or many years of special training (cf 85).
- Hamas has 3 to 5 vertical levels separating top management from the bottom level of the organization (cf 100).
- The mean number of vertical levels is 1 or 2 (cf 100).
- Hamas has 3 to 5 separate geographic locations (cf 100).
- Hamas's average distance of these separate units from the organization's headquarters is 11 to 100 miles (cf 85).
- Less than 10 % of Hamas's total workforce is located at these separate units (cf 100).
- Job descriptions are available for operational employees only or top management only (cf 85).
- Where written job descriptions exist, the employees are supervised moderately closely to ensure compliance with standards set in the job description (cf 85).
- The employees are allowed to deviate a moderate amount from the standards (cf 85).
- 21 to 40 % non-managerial employees are given written operating instructions or procedures for their job (cf 85).
- The written instructions or procedures given are followed to some extent (cf 85).
- Supervisors and middle managers are to a great extent free from rules, procedures, and policies when they make decisions (cf 85).
- 41 to 60 % of all the rules and procedures that exist within the organization are in writing (cf 85).
- Top Management is to a great extent involved in gathering the information they will use in making decisions (cf 85).

- Top management participates in the interpretation of 41 to 60 % of the information input (cf 85).
- Top management directly controls 41 to 60 % of the decisions executed (cf 85).
- The typical middle manager has no discretion over establishing his or her budget (cf 85).
- The typical middle manager has no discretion over how his/her unit will be evaluated (cf 85).
- The typical middle manager has little discretion over the hiring and firing of personnel (cf 85).
- The typical middle manager has little discretion over personnel rewards - (ie, salary increases and promotions) (cf 85).
- The typical middle manager has little discretion over purchasing equipment and supplies (cf 85).
- The typical middle manager has little discretion over establishing a new project or program (cf 85).
- The typical middle manager has little discretion over how work exceptions are to be handled (cf 85).
- Hamas has 5000 employees (cf 85).
- Hamas's age is mature (cf 100).
- Hamas's ownership status is public (cf 85).
- Hamas has many different products (cf 100).
- Hamas has many different markets (cf 100).
- Hamas operates in many countries with a low-activity level (cf 85).
- Hamas has few different products in the foreign markets (cf 85).
- Hamas's major activity is categorized as service (cf 100).
- Hamas has a specialized customer-oriented service technology (cf 100).
- Hamas has a medium routine technology (cf 100).
- Hamas's technology is highly divisible (cf 85).
- Hamas's technology dominance is strong (cf 85).
- Hamas has no advanced information system (cf 85).
- Hamas's environment is complex (cf 100).
- The uncertainty of Hamas's environment is high (cf 85).
- The equivocality of the organization's environment is high (cf 85).
- Hamas's environment is extremely hostile (cf 100).
- Top management prefers to make policy and general resource allocation decisions (cf 85).
- Top management primarily prefers to make long-term decisions (cf 85).
- Top management has a preference for very aggregate information when making decisions (cf 85).
- Top management has a preference for proactive actions (cf 85).
- Top management is risk neutral (cf 85).
- Top management has a preference for a combination of motivation and control (cf 100).
- Hamas operates in an industry with a medium capital requirement (cf 85).
- Hamas has a medium product innovation (cf 100).
- Hamas has a high process innovation (cf 100).

- Hamas has a high concern for quality (cf 85).
- Hamas's price level is undetermined relative to its competitors (cf 100).
- The level of trust is medium (cf 85).
- The level of conflict is low (cf 100).
- The employee morale is high (cf 85).
- Rewards are given in a highly equitable fashion (cf 85).
- The resistance to change is medium (cf 100).
- The leader credibility is medium (cf 100).
- The level of scapegoating is low (cf 85).

THE SIZE

The size of the organization - large, medium, or small - is based upon the number of employees, adjusted for their level of education or technical skills.

Based on the answers you provided, it is most likely that your organization's size is large (cf 85).

Between 51 and 75 % of the people employed by Hamas have a high level of education. Adjustments are made to this effect. The adjusted number of employees is greater than 2,000 and Hamas is categorized as large.

THE CLIMATE

The organizational climate effect is the summary measure of people and behavior.

Based on the answers you provided, it is most likely that the organizational climate is a developmental climate (cf 85).

The developmental climate is characterized as a dynamic, entrepreneurial and creative place to work. People stick their necks out and take risks. The leaders are considered to be innovators and risk takers. The glue that holds organizations together is commitment to experimentation and innovation. The emphasis is on being on the leading edge. Readiness for change and meeting new challenges are important. The organization's long-term emphasis is on growth and acquiring new resources. Success means having unique and new products or services and being a product or service leader is important. The organization encourages individual initiative and freedom.

An organization with low level of conflict can be categorized to have a developmental climate. Medium to high leader credibility characterizes an organization with a developmental climate. When the organization has a high to medium level of trust it is likely that the organization has a developmental climate. Employees with a high morale is frequently one element of a

developmental climate. Moderately to high equitable rewards in the organization drives the climate towards a developmental climate. An organization with a medium level of scapegoating may have a developmental climate.

THE MANAGEMENT STYLE

The level of management's microinvolvement in decision making is the summary measure of management style. Leaders have a low preference for microinvolvement; managers have a high preference for microinvolvement.

Based on the answers you provided, it is most likely that your management profile has a low preference for microinvolvement (cf 73).

The management of Hamas has a preference for delegating decisions. This will lead toward a low preference for microinvolvement. Management has a long-term horizon when making decisions, which characterizes a preference for a low microinvolvement. Since the management has a preference for making decisions on the basis of very aggregate information a low preference for microinvolvement characterization is appropriate. The management of Hamas has a preference for taking actions when making decisions. This will lead toward a low preference for microinvolvement because meeting the problems before they arise allow you to work on the general level and not being consumed with the very detailed decisions that can best be made at lower level in the organization.

THE STRATEGY

The organization's strategy is categorized as one of either prospector, analyzer with innovation, analyzer without innovation, defender, or reactor. These categories follow Miles and Snow's typology. Based on your answers, the organization has been assigned to a strategy category. This is a statement of the current strategy; it is not an analysis of what is the best or preferred strategy for the organization.

Based on the answers you provided, it is most likely that your organization's strategy is an analyzer with innovation strategy (cf 85).

An organization with an analyzer with innovation strategy is an organization that combines the strategy of the defender and the prospector. It moves into the production of a new product or enters a new market after viability has been shown. But in contrast to an analyzer without innovation, it has innovations that run concurrently with the regular production. It has a dual technology core. For a medium routine technology, Hamas has some flexibility. It is consistent with an analyzer with innovation strategy. An organization with a medium capital investment is likely to have some capabilities rather fixed, but can also adjust.

The analyzer with innovation which seeks new opportunities but also maintains its profitable position is appropriate. With a concern for high quality an analyzer with innovation strategy is a likely strategy for Hamas.

THE CURRENT ORGANIZATIONAL CHARACTERISTICS

Based on your answers, the organization's complexity, formalization, and centralization have been calculated. This is the current organization. Later in this report, there will be recommendations for the organization.

The current organizational complexity is low (cf 93).

The current horizontal differentiation is medium (cf 85).

The current vertical differentiation is low (cf 100).

The current spatial differentiation is low (cf 85).

The current centralization is high (cf 85).

The current formalization is low (cf 85).

The current organization has been categorized with respect to formalization, centralization, and complexity. The categorization is based on the input you gave and does not take missing information into account.

SITUATION MISFITS

A situation misfit is an unbalanced situation among the contingency factors of management style, size, environment, technology, climate, and strategy.

There are no situation misfits (cf 100).

No situational misfits encountered.

ORGANIZATIONAL CONSULTANT RECOMMENDATIONS

Based on your answers about the organization, its situation, and the conclusions with the greatest certainty factor from the analyses above Organizational

Consultant has derived recommendations for the organization's configuration, complexity, formalization, and centralization. There are also recommendations for coordination and control, the appropriate media richness for communications, and incentives. More detailed recommendations for possible changes in the current organization are also provided.

ORGANIZATIONAL CONFIGURATIONS

The most likely configuration that best fits the situation has been estimated to be a divisional configuration (cf 82).

It is certainly not: a machine bureaucracy (cf -100).

A divisional organization is an organization with self-contained unit grouping into relatively autonomous units coordinated by a headquarters, (product, customer, or geographical grouping).
When the organization is large, the configuration can be a divisional configuration. Because the organization has many products, the configuration should be divisional. The divisionalization of Hamas may be based on products or product groups. The divisionalization of Hamas may be based on markets. The divisional configuration may be a multi-domestic structure. Because of the low foreign product/service diversity and the low international involvement of Hamas, the configuration should be either an international functional configuration or an international division configuration.

When the organization is confronted with hostility, it cannot be a machine bureaucracy. A machine bureaucracy cannot act appropriately when unexpected events occur.

ORGANIZATIONAL CHARACTERISTICS

The recommended degree of organizational complexity is low (cf 66).

Not much is known about the environment since both the environmental uncertainty and the environmental equivocality of Hamas are high. In this situation, the organizational complexity should be low. This allows the organization to adapt quickly. When the environmental hostility of Hamas is high, organizational complexity should be low.

The recommended degree of horizontal differentiation is low (cf 66).

The recommended degree of vertical differentiation is low (cf 86).

The recommended degree of formalization is low (cf 78).

Since the set of variables in the environment that will be important is not known and since it is not possible to predict what will happen, no efficient rules and procedures can be developed, which implies that Hamas's formalization should be low. When environmental hostility is high formalization should be low. Low formalization is consistent with top management having a low preference for microinvolvement. A developmental climate in the organization requires a low level of formalization.

The recommended degree of centralization is high (cf 69).

When the environment is extremely hostile, top management must take prompt action and centralization must be high.

Hamas's span of control should be moderate (cf 64).

Since Hamas has some technology routineness, it should have a moderate span of control.

Hamas should use media with high media richness (cf 85).

The information media that Hamas uses should provide a large amount of information (cf 85).

Incentives should be based on results (cf 85).

Hamas should use meetings as means for coordination and control (cf 89).

When the environment of Hamas has high equivocality, high uncertainty, and high complexity, coordination and control should be obtained through integrators and group meetings. The richness of the media should be high with a large amount of information. Incentives must be results based.Coordination within each division is very important. Coordination between (among) divisions is usually relegated to top management, which is also concerned about strategic direction and allocation of funds between (among) the divisions.Technology efficiencies can be obtained by sharing technology, information and new developments across divisions. Liaison managers and technology committees are possible coordination mechanisms. Conferences among technical professionals can be very effective.When the organization has a developmental climate, coordination should be obtained using planning, integrators and meetings. Incentives could be results based with an individual orientation. An

organization with a developmental climate will likely have to process a large amount of information and will need information media with high richness.

ORGANIZATIONAL MISFITS

Organizational misfits compares the recommended organization with the current organization.

There are no organizational misfits (cf 100).

MORE DETAILED RECOMMENDATIONS

No detailed recommendations present (cf 100).

Based on the present input Organizational Consultant was not able to make any detailed recommendations.

END

APPENDIX C. ADDITIONAL TABLES

	Question	Current Characteristics Answer	CF	Perfectly Fit Answer	CF
Current Configuration	Current organizational configuration	Divisional	100	Divisional	100
Current Complexity	How many different job titles	Large Number	85	Small Number	85
	Proportion employees with advanced degrees or specialized training	51-75%	85	51-75%	85
	How many vertical levels between top and bottom	6 to 8	100	3 to 5	100
	Average number levels	6 to 8	100	1 or 2	100
	How many geographic locations where members employed	More than 30	100	3 to 5	100
	Average distance of units from main center	11 to 100	85	11 to 100	85
	Proportion work force located at separate units	More than 90%	100	less than 10%	100
Current Formalization	Written job descriptions available for	All employees, including senior management	85	oper. Employees or top management	85
	How close employees supervised to ensure compliance with standards	Moderately close	85	moderately close	85
	How much latitude employees allowed from standards	a moderate amount	85	a moderate amount	85
	Percentage of non-managerial employees given written procedures	61 to 80%	85	21 to 40%	85
	Of managerial employees given written instructions, to what extent followed	Some	85	some	85
	Extent supervisors free from rules, procedures, and policies	Some	85	a great deal	85
	Percentage of all rules and procedures in writing	41 to 60%	85	41 to 60%	85
Current Centralization	How much direct involvement of top management in info gathering	Little	85	a great deal	85
	What degree does top management participate in interpretation of info	0 to 20%	85	41 to 60%	85
	What degree does top management directly control execution of decision	less than 20%	85	41 to 60%	85
	Discretion of middle management over establishing own budget	some	85	none	85
	Discretion of middle management over how unit evaluated	Some	85	none	85
	Discretion of middle management over hiring/firing personnel	Great	85	little	85
	Discretion of middle management over personnel rewards	Some	85	little	85
	Discretion of middle management over purchasing equipment/supplies	Some	85	little	85
	Discretion of middle management over establishing new program	Some	85	little	85
	Discretion of middle management over handling work exceptions	Great	85	little	85
Size	How many employees	5000	85	5000	85
Age/Ownership	How old is the organization	Mature	100	mature	100
	What kind of ownership	public/state owned	85	public/state owned	85
Diversity	Many products	Many	100	many	100
	Many markets	Many	100	many	100
	Organization operate in more than one country	yes- activity level lower than 25%	85	yes- activity level lower than 25%	85
	Many different products in the foreign market	Few	85	few	85

Technology	Major activity of the organization	Service	100		service	100
	Kind of technology	a specialized customer oriented retail	100		a specialized customer oriented retail	100
	Routine technology	Somewhat	100		somewhat	100
	Technology divisible	Highly	85		highly	85
	Strong or weak dominant technology	Strong	85		strong	85
	Use or plan to use advanced information system	No	85		no	85
Environment	Organizational environment simple or complex	Complex	100		complex	100
	Level of uncertainty of the environment	High	85		high	85
	Equivocality of the environment low or high	High	85		high	85
	Is organizational environment hostile	Extreme	100		extreme	100
Management Profile	Delegation by top management prefers to make	policy and general management decisions	85		policy and general management decisions	85
	Long-term or short-time decisions by top management	long term	85		long term	85
	Level of detail of information top management prefers to use to make decisions	Very aggregate information	85		very aggregate information	85
	Top management proactive or reactive	Proactive anticipating future events	85		proactive anticipating future events	85
	Top management risk averse or preferred	risk neutral	85		risk neutral	85
	Top management kind of motivation and control	A combination of motivation and control	100		a combination of motivation and control	100
Strategy Factors	Organization high or low capital requirement	Medium	85		medium	85
	Organization high or low product innovation	Low	100		medium	100
	Organization high or low process innovation	High	100		high	100
	Organization high or low concern for quality	High	85		high	85
	Organization's price level compared to competitors	no answer	100		no answer	100
Climate Factors	Level of trust	Medium	85		medium	85
	Level of conflict	Low	100		low	100
	Employee morale	High	85		high	85
	Rewards given in an equitable fashion	Highly equitable	85		highly equitable	85
	Organization's resistance to change	Medium	100		medium	100
	Leadership credibility	Medium	100		medium	100
	Level of scapegoating	Low	85		low	85

Table 3.   Changes in Answers to Hamas to Obtain Perfect Fit

Category	Question	Original Answer	CF		New Answer	CF		Effect of single variable change
Current Complexity	How many different job titles	Large Number	85		Small Number	85		No individual effect, only helps get rid of recommendation to cut job desc.
	How many vertical levels between top and bottom	6 to 8	100		3 to 5	100		No individual effect
	Average number levels	6 to 8	100		1 or 2	100		No individual effect
	How many geographic locations where members employed	More than 30	100		3 to 5	100		No individual effect
	Proportion work force located at separate units	More than 90%	100		less than 10%	100		Reduces organizational complexity from "high" to "medium"
Current Formalization	Written job descriptions available for	all employees, including senior management	85		oper. Employees or top management	85		No individual effect
	Percentage of non-managerial employees given written procedures	61 to 80%	85		21 to 40%	85		Removes "You may consider fewer written job descriptions." from output.
	Extent supervisors free from rules, procedures, and policies	some	85		a great deal	85		No individual effect
Current Centralization	How much direct involvement of top management in info gathering	little	85		a great deal	85		Removes "Top management may consider gathering the information needed for decision making themselves."
	What degree does top management participate in interpretation of info	0 to 20%	85		41 to 60%	85		Removes "Top management may interpret and analyze more information itself."
	What degree does top management directly control execution of decision	less than 20%	85		41 to 60%	85		Removes "Top management may control the execution of decisions more actively."
	Discretion of middle management over establishing own budget	some	85		none	85		No individual effect
	Discretion of middle management over how unit evaluated	some	85		none	85		No individual effect
	Discretion of middle management over hiring/firing personnel	great	85		little	85		Removes "You may give middle managers less discretion on hiring and firing personnel."
	Discretion of middle management over personnel rewards	some	85		little	85		No individual effect

	Discretion of middle management over purchasing equipment/supplies	some	85		little	85		No individual effect
	Discretion of middle management over establishing new program	some	85		little	85		No individual effect
	Discretion of middle management over handling work exceptions	great	85		little	85		Removes "The typical middle manager may be given less discretion over how work exceptions are to be handled."
Strategy Factors	Organization high or low product innovation	low	100		medium	100		Removes situational misfit of too low product innovation in an uncertain environment.

Table 4.   Effects of a Single Variable Change to Make Hamas More Fit

		Current Characteristics			Unfit	
	Question	**Answer**	**CF**		**Answer**	**CF**
Current Configuration	Current organizational configuration	Divisional	100		Divisional	100
Current Complexity	How many different job titles	Large Number	85		Large Number	85
	Proportion employees with advanced degrees or specialized training	51-75%	85		51-75%	85
	How many vertical levels between top and bottom	6 to 8	100		6 to 8	100
	Average number levels	6 to 8	100		6 to 8	100
	How many geographic locations where members employed	More than 30	100		More than 30	100
	Average distance of units from main center	11 to 100	85		11 to 100	85
	Proportion work force located at separate units	More than 90%	100		More than 90%	100
Current Formalization	Written job descriptions available for	all employees, including senior management	85		all employees, including senior management	85
	How close employees supervised to ensure compliance with standards	moderately close	85		moderately close	85
	How much latitude employees allowed from standards	a moderate amount	85		a moderate amount	85
	Percentage of non-managerial employees given written procedures	61 to 80%	85		61 to 80%	85
	Of managerial employees given written instructions, to what extent followed	some	85		some	85
	Extent supervisors free from rules, procedures, and policies	some	85		some	85
	Percentage of all rules and procedures in writing	41 to 60%	85		41 to 60%	85
Current Centralization	How much direct involvement of top management in info gathering	little	85		little	85
	What degree does top management participate in interpretation of info	0 to 20%	85		0 to 20%	85
	What degree does top management directly control execution of decision	less than 20%	85		less than 20%	85
	Discretion of middle management over establishing own budget	some	85		some	85
	Discretion of middle management over how unit evaluated	some	85		some	85
	Discretion of middle management over hiring/firing personnel	great	85		great	85
	Discretion of middle management over personnel rewards	some	85		some	85
	Discretion of middle management over purchasing equipment/supplies	some	85		some	85
	Discretion of middle management over establishing new program	some	85		some	85

Category	Question	Value 1	Score 1	Value 2	Score 2
	Discretion of middle management over handling work exceptions	great	85	great	85
Size	How many employees	5000	85	5000	85
Age/Ownership	How old is the organization	mature	100	mature	100
	What kind of ownership	public/state owned	85	public/state owned	85
Diversity	Many products	many	100	many	100
	Many markets	many	100	many	100
	Organization operate in more than one country	yes- activity level lower than 25%	85	yes- activity level lower than 25%	85
	Many different products in the foreign market	few	85	few	85
Technology	Major activity of the organization	service	100	service	100
	Kind of technology	a specialized customer oriented retail	100	a specialized customer oriented retail	100
	Routine technology	somewhat	100	somewhat	100
	Technology divisible	highly	85	highly	85
	Strong or weak dominant technology	strong	85	strong	85
	Use or plan to use advanced information system	no	85	no	85
Environment	Organizational environment simple or complex	complex	100	complex	100
	Level of uncertainty of the environment	high	85	high	85
	Equivocality of the environment low or high	high	85	high	85
	Is organizational environment hostile	extreme	100	extreme	100
Management Profile	Delegation by top management prefers to make	policy and general management decisions	85	policy and general management decisions	85
	Long-term or short-time decisions by top management	long term	85	long term	85
	Level of detail of information top management prefers to use to make decisions	very aggregate information	85	very aggregate information	85
	Top management proactive or reactive	proactive anticipating future events	85	proactive anticipating future events	85
	Top management risk averse or preferred	risk neutral	85	risk neutral	85
	Top management kind of motivation and control	a combination of motivation and control	100	a combination of motivation and control	100
Strategy Factors	Organization high or low capital requirement	Medium	85	medium	85
	Organization high or low product innovation	Low	100	low	100
	Organization high or low process innovation	High	100	high	100
	Organization high or low concern for quality	High	85	high	85
	Organization's price level compared to competitors	No answer	100	no answer	100
Climate Factors	Level of trust	Medium	85	low	85
	Level of conflict	Low	100	high	100
	Employee morale	High	85	low	85
	Rewards given in an equitable fashion	highly equitable	85	highly equitable	85
	Organization's resistance to change	Medium	100	medium	100
	Leadership credibility	Medium	100	low	100
	Level of scapegoating	Low	85	low	85

Table 5. Changes in Answers to Hamas to Obtain Complete Unfit

	Question	Original Answer	CF		New Answer	CF		Effect of single variable change
Current Configuration	Current organizational configuration	Divisional	100		Any	100		Adds "Current and prescribed configuration do not match."
Current Complexity	How many different job titles	Large Number	85		Great Number	85		No change
	Proportion employees with advanced degrees or specialized training	51-75%	85		Any	85		No change
	How many vertical levels between top and bottom	6 to 8	100		More than 12	100		No change
	Average number levels	6 to 8	100		More than 12	100		No change
	How many geographic locations where members employed	More than 30	100		No change	100		The answer could not be changed because it was already the most limiting to Hamas.
	Average distance of units from main center	11 to 100	85		Any greater than 100	85		No change
	Proportion work force located at separate units	More than 90%	100		No change	100		The answer could not be changed because it was already the most limiting to Hamas.
Current Formalization	Written job descriptions available for	all employees, including senior management	85		None	85		No change
	How close employees supervised to ensure compliance with standards	moderately close	85		very close	85		Increases current formalization from "medium" to "high"
	How much latitude employees allowed from standards	a moderate amount	85		none	85		Increases current formalization from "medium" to "high"
	Percentage of non-managerial employees given written procedures	61 to 80%	85		81 to 100%	85		No change
	Of managerial employees given written instructions, to what extent followed	some	85		a very great deal	85		Increases current formalization from "medium" to "high"
	Extent supervisors free from rules, procedures, and policies	some	85		none	85		Increases current formalization from "medium" to "high" and outputs "You may give supervisors and middle managers fewer rules and procedures."

Current Centralization	Percentage of all rules and procedures in writing	41 to 60%	85		more than 80%	85		Increases current formalization from "medium" to "high" and outputs "You may consider having fewer rules and procedures put in writing."
	How much direct involvement of top management in info gathering	little	85		none	85		No change
	What degree does top management participate in interpretation of info	0 to 20%	85		No change	85		The answer could not be changed because it was already the most limiting to Hamas.
	What degree does top management directly control execution of decision	less than 20%	85		No change	85		The answer could not be changed because it was already the most limiting to Hamas.
	Discretion of middle management over establishing own budget	some	85		very great	85		Adds "The middle managers may be given less discretion over establishing budgets."
	Discretion of middle management over how unit evaluated	some	85		very great	85		Adds "The middle managers may be given less discretion over evaluations."
	Discretion of middle management over hiring/firing personnel	great	85		very great	85		No change
	Discretion of middle management over personnel rewards	some	85		very great	85		Adds "The typical middle manager may be given less discretion over personnel rewards."
	Discretion of middle management over purchasing equipment/supplies	some	85		very great	85		Adds "The typical middle manager may be given less discretion over purchasing equipment and supplies."
	Discretion of middle management over establishing new program	some	85		very great	85		Adds "The typical middle manager may be given less discretion over establishing a new program or project."
	Discretion of middle management over handling work exceptions	great	85		very great	85		No change
Size	How many employees	5000	85		lowered gradually	85		As the number was lowered, Hamas was still evaluated to be large, but its certainty factor went down
Age/Ownership	How old is the organization	mature	100		Any	100		No change
	What kind of ownership	public/state owned	85		Any	85		No change

Diversity	Many products	many	100		Any	100		Strategy is changed to defender (this is considered inappropriate for a variety of reasons). Also, this change leads to confusion as to what the configuration should be (Organizational Consultant recommends simple).
	Many markets	many	100		Any	100		No change
	Organization operate in more than one country	yes- activity level lower than 25%	85		Any	85		No change
	Many different products in the foreign market	few	85		Any lower than few, or No Answer	85		No change
Technology	Major activity of the organization	service	100		Any	100		No change
	Kind of technology	a specialized customer oriented retail	100		a standard high volume service	100		Strategy is changed to analyzer without innovation.
	Routine technology	somewhat	100		Any	100		Strategy is changed to analyzer without innovation.
	Technology divisible	highly	85		Any	85		Configuration is changed to matrix.
	Strong or weak dominant technology	strong	85		Any	85		No change
	Use or plan to use advanced information system	no	85		yes	85		No change
Environment	Organizational environment simple or complex	complex	100		Any	100		No change
	Level of uncertainty of the environment	high	85		low	85		No change
	Equivocality of the environment low or high	high	85		low	85		Outputs that analyzer with innovation may not be appropriate.
	Is organizational environment hostile	extreme	100		No change	100		The answer could not be changed because it was already the most limiting to Hamas.
Management Profile	Delegation by top management prefers to make	policy and general management decisions	85		both general and operating decisions	85		Outputs that the management dimensions are not in balance. "This is likely to result in an ineffectual individual."
	Long-term or short-time decisions by top management	long term	85		Any	85		No change
	Level of detail of information top management prefers to use to make decisions	very aggregate information	85		medium detailed information	85		Changes preference for microinvolvement to medium

				very detailed information	85		Outputs that the management dimensions are not in balance. "This is likely to result in an ineffectual individual."
	Top management proactive or reactive	proactive anticipating future events	85		reactive to events as they occur	85		Outputs that the management dimensions are not in balance. "This is likely to result in an ineffectual individual."
				some proactive and some reactive	85		Changes preference for microinvolvement to medium
	Top management risk averse or preferred	risk neutral	85		Any	85		No change
	Top management kind of motivation and control	a combination of motivation and control	100		using control techniques	100		Outputs that the management dimensions are not in balance. "This is likely to result in an ineffectual individual."
Strategy Factors	Organization high or low capital requirement	medium	85		high	85		Strategy is changed to defender (this is considered inappropriate for a variety of reasons). Also, this change leads to confusion as to what the configuration should be (Organizational Consultant recommends simple).
				low	85		Strategy is changed to analyzer without innovation.
	Organization high or low product innovation	low	100		No change	100		The answer could not be changed because it was already the most limiting to Hamas.
	Organization high or low process innovation	high	100		low	100		No change
	Organization high or low concern for quality	high	85		low	85		No change
	Organization's price level compared to competitors	no answer	100		No answer	100		
Climate Factors	Level of trust	medium	85		low	85		No change
	Level of conflict	low	100		high	100		No change, but weakens case for developmental climate in favor of rational goal climate.
	Employee morale	high	85		low	85		No change
	Rewards given in an equitable fashion	highly equitable	85		inequitably	85		No change
	Organization's resistance to change	medium	100		Any	100		No change

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Leadership credibility	medium	100		high	100		No change, but weakens case for developmental climate in favor of group climate.
				low	100		No change, but weakens case for developmental climate in favor of rational goal climate.
Level of scapegoating	low	85		high	85		No change

Table 6.   Effects of a Single Variable Change to Make Hamas Less Fit

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